

STATEWIDE
ACC: 68

RECONNAISSANCE DATA ON LAKES IN WASHINGTON VOLUME 2

KING AND SNOHOMISH COUNTIES



STATE OF WASHINGTON
DANIEL J. EVANS, Governor
DEPARTMENT OF ECOLOGY
JOHN A. BIGGS, Director

Water-Supply Bulletin 43, Vol.2



Prepared in Cooperation with
United States Department of the Interior
Geological Survey • 1976



STATE OF WASHINGTON
Daniel J. Evans, Governor

DEPARTMENT OF ECOLOGY
John A. Biggs, Director

Water-Supply Bulletin 43, Vol. 2

RECONNAISSANCE DATA ON LAKES IN WASHINGTON

VOLUME 2

KING AND SNOHOMISH COUNTIES

By

G. C. Bortleson, N. P. Dion, J. B. McConnell,
and L. M. Nelson

Prepared in cooperation with
UNITED STATES GEOLOGICAL SURVEY

1976

CONTENTS

	Page
Abstract-----	1
Introduction-----	1
Purpose and scope-----	3
Acknowledgments-----	3
Occurrence of lakes in Washington-----	3
Data collected and definitions-----	4
Glossary-----	10
References cited-----	12
Basic data-----	13
Lakes in King County-----	14
Lakes in Snohomish County-----	255
Index-----	421

ILLUSTRATION

FIGURE 1. Map of Washington, showing location of counties covered in each volume of seven-volume report series-----	2
------------------------------------------------------------------------------------------------------------------------	---

The following factors are provided for conversion of English values used in this report to metric values:

<u>Multiply</u>	<u>By</u>	<u>To obtain</u>
Inches	2.54	centimetres (cm)
Feet (ft)	.3048	metres (m)
Miles (mi)	1.609	kilometres (km)
Cubic feet (ft ³)	.02832	cubic metres (m ³)
Square miles (sq mi)	2.590	square kilometres (km ²)
Acres	4047.	square metres (m ²)
	.4047	hectares (ha)
Cubic feet per second (ft ³ /s)	.02832	cubic metres per second (m ³ /s)

RECONNAISSANCE DATA ON LAKES IN WASHINGTON
VOLUME 2

KING AND SNOHOMISH COUNTIES

By G. C. Bortleson, N. P. Dion, J. B. McConnell,
and L. M. Nelson

ABSTRACT

A total of 156 lakes in two counties of western Washington was sampled using helicopter or boat to obtain information on their physical, cultural, and water-quality conditions. The basic data presented will be useful to planning groups involved in lake management and to sportsmen, tourists, and others interested in Washington's lakes.

INTRODUCTION

The State of Washington has more than 7,800 lakes, ponds, and reservoirs (Wolcott, 1964 and 1965), many of which provide excellent recreational opportunities and supply water for agricultural, municipal, and industrial purposes. These water bodies constitute an important part of the State's total water resources and are an integral part of the hydrology of many drainage basins.

This is the second of a seven-volume series of reports on Washington lakes and contains data from 156 lakes in King and Snohomish Counties in the western part of the State (fig.1).

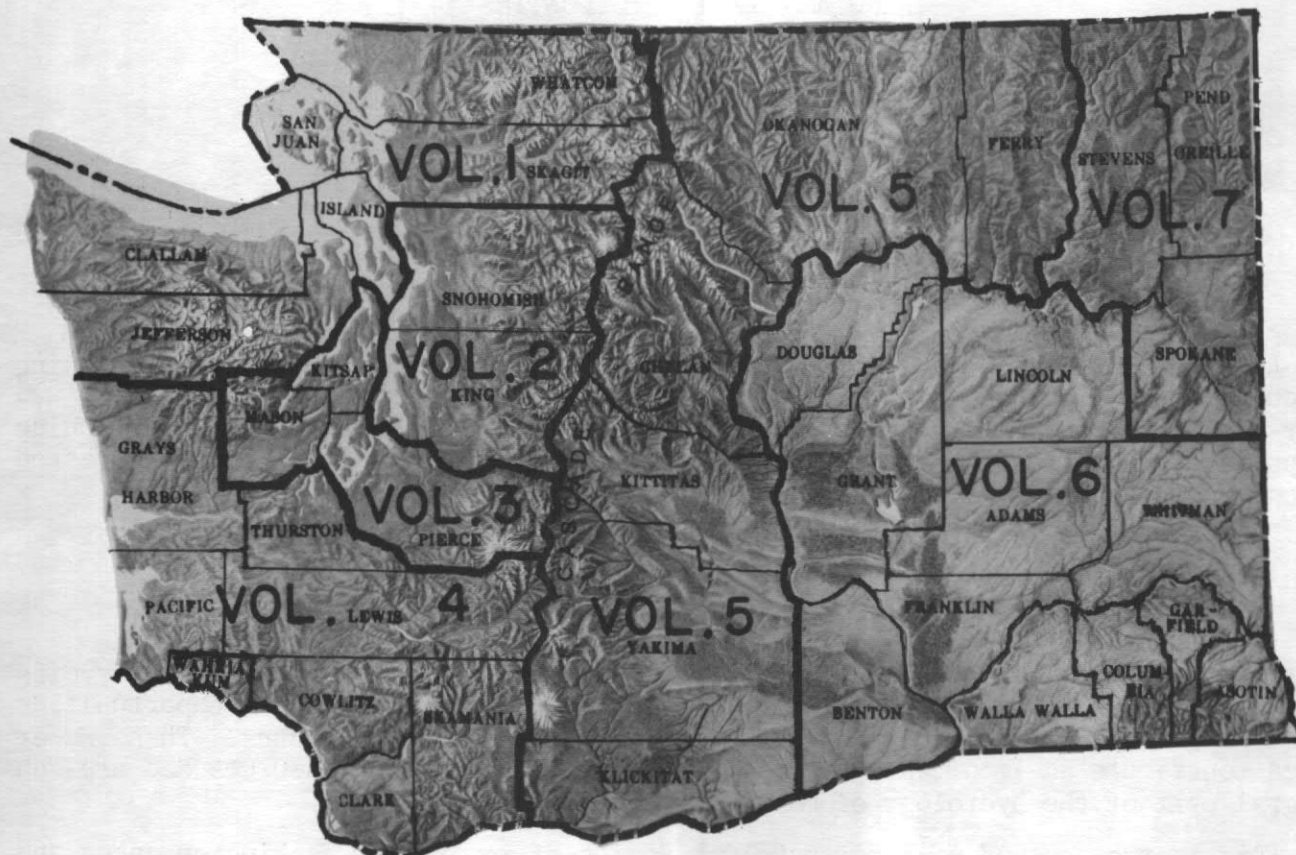


FIGURE 1.--Location of counties covered in each of seven-volume report series.

Purpose and Scope

Although both the importance and value of the Washington lakes are widely recognized, the quantity and types of information currently available for most of the lakes are not adequate to provide the understanding needed for wise management of the lakes. Thus, the need to obtain additional information about lakes resulted in the initiation in 1970 of a cooperative program between the Washington State Department of Ecology and the U.S. Geological Survey, whereby selected lakes in Washington would be investigated (Collings, 1973; Bortleson and others, 1974). Because the program--designed for the study of approximately 25 lakes per year during fiscal years 1970-74--deals with only a small fraction of the total number of lakes in the State, a reconnaissance study involving several hundred lakes was undertaken to provide preliminary information for use by planning groups as well as sportsmen, tourists, and others interested in preserving the water quality of Washington's lakes.

In general, the study consists of a data-collection program designed to (1) document the present water quality and the overall status of the lakes, and (2) provide basic data pertaining to the physical, cultural, and water-quality characteristics of the lakes.

More than 750 lakes in all but four counties of the State were studied; these are equally distributed between western and eastern Washington. Most of the lakes investigated were 20 acres or larger in size and were selected because they constitute shorelines of the State covered under the Shoreline Management Act of 1971 (Washington State Department of Ecology, 1973). However, some of the lakes listed as constituting shorelines of the State were not sampled; these included marshes with no open water or intermittent lakes which were dry at the time of visit.

Acknowledgments

The authors gratefully acknowledge the assistance of the State of Washington Department of Game for permission to reproduce many of the lake bathymetric maps. Many other bathymetric maps were reproduced from those in the reports by Wolcott (1964, 1965).

Occurrence of Lakes in Washington

Lakes in Washington occur under various geologic conditions. In the Puget Sound Lowland of western Washington most lakes occupy depressions in the surface of glacial drift--the sand, gravel, silt, clay, and till laid down by the Puget lobe of continental glaciers during the ice age. These depressions are either elongate troughs cut by the passing ice sheet or are more circular kettles formed by the melting of stagnant ice blocks.

In the adjacent foothills of the Cascade Range and Olympic Mountains, most lakes occupy depressions eroded into the bedrock by the passing continental glacier, while lakes in the higher mountains are in basins cut by local alpine glaciers.

In eastern Washington, lakes in the higher northern areas--the Okanogan Highlands and Selkirk Mountains--and on the eastern slope of the Cascade Range generally occur in glacier-cut depressions in bedrock. In the semiarid Columbia Plateau, underlain by basalt, most lakes occupy the more deeply cut parts of some coulees of the channeled scablands. Most of these coulees were cut by gigantic, catastrophic floods (Bretz, 1959) resulting from the breaking of ice dams and the rapid emptying of large glacial lakes.

Many lakes have been formed, or increased in size, by man's activities. Numerous reservoirs are located in mountain valleys and serve a variety of purposes, including municipal water supply, irrigation, electrical-power generation, flood control, and recreation. In lowland areas some natural lakes have been enlarged or new lakes have been formed by small dams. In the Columbia Basin Irrigation Project area of eastern Washington, several lakes have been enlarged and reservoirs (Banks Lake and Potholes Reservoir) have been created in conjunction with large-scale irrigation by water diverted from the Columbia River at Grand Coulee Dam. Also, numerous small lakes and ponds have resulted from irrigation in the area.

Data Collected and Definitions

The data collected and the lake parameters used in describing the individual lakes are explained here, prior to presentation of the data for each lake. The parameters are discussed in the sequence in which they appear on the data sheets. The definitions of additional limnological and hydrological terms used throughout the report are found in the Glossary (p. 10).

Lake name. The lake name was taken from U.S. Geological Survey topographic maps. Duplicate lake names are followed by location designations for uniqueness. Lakes that are not named on the topographic map and for which no local name is known are referred to as "unnamed," followed by a location designation. Only the proper name of the lake is given; in common usage the term "Lake" may either precede or follow the proper name. All adjectives (for example, Big, East, and Upper) follow the lake name. When a lake has two names, both are given, but priority is given to the topographic-map name. The lake names and respective data are listed alphabetically by counties.

Location. Latitude, longitude, township, range, and section location were determined from U.S. Geological Survey quadrangle maps. The location point is the lake outlet. For lakes without outlets, the southernmost shoreline point is used. The lakes are presented in the report according to the county in which the location point occurs.

Drainage basin. The major drainage system in which the lake is located was determined. Some lakes drain directly into Puget Sound or the Pacific Ocean without entering a major river system.

Physical data. Physical parameters were determined from topographic and bathymetric (bottom-contour) maps of the lakes. If bathymetric maps were not available, the lakes were sounded and charted by boat using a continuous-recording fathometer. For lakes with no boat access, a helicopter equipped with a fathometer, pontoons, and a conventional outboard motor was used to chart the lake. By use of aerial photographs and lake depths, the bathymetric data were digitized and transferred to computer cards which served as input to a computerized program that calculated lake morphometric parameters (for example, lake volume, surface area, and length of shoreline).

Drainage area.--The surface-drainage area, that contributes water to the lake is given in square miles (sq mi). These areas were delineated on U.S. Geological Survey topographic maps and measured by planimeter. Some lakes are in drainage basins of low relief in which surface runoff to the lake may not be a significant factor. Nevertheless, in all cases the drainage area was determined according to topographic divide.

Surface altitude.--A single altitude in feet (ft) above mean sea level (msl), obtained from topographic maps, is given for each lake. If not specifically shown on the map, altitudes are estimated from the nearest contour line. The altitude of a reservoir is given as the level of the water surface at normal full reservoir capacity.

Surface area (A).--The surface area of the lake, in acres, was obtained from planimetry of the lake outline or from computerized calculations of digitized data.

Volume (V).--Lake volume, in acre-feet, was obtained either by computing and then summing the volumes of each stratum of water between successive contours on the bathymetric map or by calculating from digitized data. Because lake volume can vary between seasons and from year to year, the volume figures reported (as well as other morphometric data) are intended only to describe the general size of the lake.

Mean depth (\bar{Z}).--The mean depth, in feet, for a specified lake stage, was obtained by dividing the volume of the lake by its area.

Maximum depth (Z_m).--The difference in elevation, in feet, between the bottom and the surface of the lake. The maximum depth obtained from field surveys may not necessarily be shown on the bathymetric maps.

Length of shoreline (L).--The distance around, or perimeter, in miles, of the water surface touching the shore at a specified lake stage. The shoreline length depends on the fineness of detail of the shore outline on the bathymetric map.

Shoreline configuration (D_L).--A dimensionless ratio of the length of shoreline to the circumference of a circle having an area equal to that of the lake, given as

$$D_L = \frac{L}{2\sqrt{\pi A}} .$$

This quantity may be regarded as an index of the geological and littoral processes affecting the shape of the lake. Nearly circular lakes have values near unity, subcircular lakes have slightly greater D_L values and elongate lakes have the highest D_L values. High D_L values are common to lakes formed along old drainages or by the damming of streams to form a lake in the valley behind a dam.

High values for shoreline configuration suggest the presence of shallow water and protected bays--areas suitable for plant growth--and also indicate an increase in contact between land and water. Therefore, shoreline configuration is often an indirect indicator of plant growth capacity and enrichment potential from nearshore development and runoff.

Development of volume (D_V).--The development of volume is defined as the ratio of the mean depth (\bar{Z}) to the maximum depth (Z_m). Thus, lakes with a low D_V ratio are usually conical-shaped depressions, and lakes with a high D_V ratio are steep-sided with flat bottoms. Shallow lakes which have large values for development of volume (D_V), tend to provide the greater opportunity for exposure of bottom sediments to overlying water and for circulation of bottom nutrients.

Bottom slope (Z_r).--The slope profile of a lake bottom, expressed as a percentage ratio of the maximum depth to the mean lake diameter (referred to by Hutchinson, 1957, p. 167, as relative depth) and given as

$$Z_r = \frac{Z_m \times 50\sqrt{\pi}}{\sqrt{A}}$$

Bottom slope is a measure of the extent of shallow water and is important to the growth of rooted aquatic plants and potential for wind mixing of water with bottom sediments.

Basin geology. The predominant geology of the lake's drainage basin was obtained from a geologic map of the State of Washington (Hunting and others, 1961). The drainage basin is indicated as being underlain by either (1) unconsolidated sedimentary deposits and (or) metasedimentary rocks, or (2) igneous rocks.

Inflow. Perennial or intermittent surface inflow is indicated, if known. Some lakes have no visible inflow, and water gain is from direct precipitation on the lake and (or) from ground-water seepage.

Outflow. The presence or absence of a surface-water outflow channel is indicated. Some lakes have no surface-water outflow, and water loss is through evaporation, transpiration, and (or) ground-water seepage.

Cultural data. Data related to cultural development were obtained from topographic maps, aerial photographs, and shoreline reconnaissance by helicopter or boat.

Nearshore residential development.--The percentage of shoreline occupied by residential development was determined from aerial photographs.

Number of nearshore homes.--A count of the number of nearshore homes adjoining the lakefront was made from field observations, topographic maps, or aerial photographs.

Land use.--The drainage basins of the lakes were partitioned into various generalized land-use categories. Values given reflect the percentages of the basin used primarily for forest or for residential urban, residential suburban, or agricultural development. The lake surface is also given as a percentage of the total drainage basin. A general description of the land-use categories is as follows:

- a. Residential urban.--Predominant use is for single-family residences, where apartment complexes and commercial or industrial activities also may be present.
- b. Residential suburban.--Predominant use is single-family residences.
- c. Agricultural.--Pasture or cropland.
- d. Forest or unproductive.--Public and private forest lands and tree farms. Lands may include cleared or fallow unproductive land, meadows, wetlands, and seasonal recreational areas.
- e. Lake surface.--Includes surface area of the lake and of upstream tributary lakes.

Public boat access to lake.--The presence of a public boat access is indicated. Most public boat access facilities are maintained by the State of Washington Department of Game. The location of the boat access (symbol Δ) is shown on the bathymetric map.

Water-quality data. From helicopters fitted with pontoons or from boats, vertical profiles of temperature and DO (dissolved oxygen) concentration were measured in the deepest part of each lake. Multiple sites were sampled on lakes with areas greater than 1,000 acres and on irregular-shaped lakes. Secchi-disc visibility was also determined. Water samples were collected for color, nutrient, and specific-conductance analyses at depths 3.0 feet below the water surface and 3-5 feet above the lake bottom. Lakes less than 5 feet deep were sampled at about one-third and two-thirds the depth of the lake. For most lakes, estimates of the percentage of both lake area and lake shoreline covered by emerged and (or) floating rooted aquatic plants were made by a visual inspection of the lake during aerial reconnaissance. Samples for fecal-coliform bacteria were collected at selected nearshore sites, approximately 100 feet offshore at a depth of 1 foot below the water surface.

Information from most of the lakes was collected during the periods of July-September 1973 or May-September 1974. Prior to 1973, some of the lakes were sampled four times during a year by Bortleson, Higgins, and Hill (1974). For those lakes sampled more than once during a year, the data from the midsummer sample period are presented. All samples were collected and analyzed according to accepted standardized procedures (American Public Health Association and others, 1971; Brown and others, 1970; and Slack and others, 1973).

Nutrients.--A nutrient is any chemical element, ion, or compound that is required by an organism for the continuation of growth, reproduction, and other life processes. Many elements and compounds act as nutrients to supply the food for aquatic plants and algae. However, nitrogen and phosphorus usually are considered the limiting nutrients to plant growth and as such received the most emphasis in this study. Whatever nutrient is limiting aquatic plant growth, the concentrations of nitrogen and phosphorus are useful in evaluating the trophic conditions of a lake (Lee, 1970). The nutrient concentrations that were determined at top and bottom sampling depths included total nitrate, nitrite, ammonia and organic nitrogen, phosphorus, and orthophosphate. For those lakes sampled during previous studies (Bortleson and others, 1974), the samples for orthophosphate, nitrite, and nitrate were filtered through a 0.45- μ m (micrometre) millipore filter. The concentrations of these particular samples are indicated as "dissolved."

Specific conductance.--Specific conductance is a measure of the water's ability to conduct an electric current and is expressed in micromhos per centimetre at 25°C (Celsius). Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids concentration in the water.

Water temperature.--Temperature, which varies in lakes with depth and time of year, is an important controlling factor for life processes and chemical-reaction rates, as well as many physical events that occur in the aquatic environment.

For most lakes, the water temperatures listed for the upper, near-surface water were probably close to the maximum for the year when sampled. Temperature profiles in lakes during midsummer, when thermal stratification is marked, generally follow one of two common patterns. In shallow lakes, well exposed to the wind, temperatures will be found to be practically constant from top to bottom. This uniformity of temperature indicates that the waters are well mixed throughout. The other common pattern occurs in deeper lakes, where three characteristic thermal layers are present: (1) an upper zone (epilimnion) of generally warmer water in which temperature is more or less uniform throughout; (2) an intermediate zone (metalimnion) in which temperature decreases rapidly with depth; and (3) a lower zone (hypolimnion) of colder water in which temperature is again more or less uniform throughout.

The temperature of the deep-water layer (hypolimnion) during midsummer is of biological significance because (1) temperature stratification and water circulation affect the vertical distribution of nutrients, and (2) water temperatures affect the potential of cold-water fisheries resources.

Color.--Color is one control of light transmission through water. High color values often result from the decomposition of vegetation, giving the water a brown, tea-like color and reducing water clarity. Color value is determined by a comparison of the water with standardized colored-glass discs and is reported in platinum-cobalt (Pt-Co) units.

Secchi-disc visibility.--Secchi-disc visibility is the depth at which a black and white disc (8 inches in diameter) disappears from view when lowered into the water. Secchi-disc visibility is a measure of water transparency or clarity. Because changes in biological production can cause changes in the color and turbidity of a lake, Secchi-disc visibility often is used as a gross measure of the quantity of plankton in the water. Secchi-disc depths preceded by the symbol ">" indicate the disc was resting on the bottom of the lake and was still visible.

Dissolved oxygen.--The concentration of DO in a lake varies with time of year and depth of water and is a function of many factors, including the water temperature, atmospheric pressure, and salinity of the water. Oxygen concentration in water is continually being altered by life processes, such as photosynthesis and respiration, and by complex chemical reactions. Of special biological significance is the amount of DO in the hypolimnion during midsummer. The organisms in the lighted upper layers of water produce organic matter which eventually settles to the bottom where bacteria consume oxygen to degrade the organic materials, thereby reducing the DO concentration in the hypolimnion. The hypolimnetic-oxygen deficit frequently is related to the biomass or plant growth in the upper waters (Hutchinson, 1957). For good growth and general health of trout, salmon, and other species of cold-water biota, the DO concentrations should not be less than 6.0 mg/l (milligrams per litre) according to the Federal Water Pollution Control Administration (1968).

Emersed plants.--These are large plants that can be seen without magnification. Examples of emersed plants include cattails and sedges in which the leaves or other structures extend above the water surface. In this report, rooted floating aquatic plants such as waterlilies and watershield are considered emersed. The rooted aquatic-plant growth was assessed according to the percentage of the lakeshore and water surface covered by emersed and (or) floating plants.

Remarks. This includes other useful lake information that was obtained during the reconnaissance. Such topics as the following might be included.

1. Descriptive information.
2. Qualifying statements.
3. Availability of additional information.
4. Unusual lake or drainage-basin characteristics.

Bathymetric maps. A bathymetric map is given for each lake. The map source and date of the survey are indicated.

Aerial photographs. An aerial photograph is shown for each lake and reservoir. Black-and-white aerial photographs at an approximate scale of 1:12,000 and 1:63,000 were obtained from the State of Washington Department of Natural Resources. Additional aerial photographs at an approximate scale of 1:4,800 were taken by the U.S. Geological Survey of selected lakes in the populated, 10-county Puget Sound area and of other selected lakes throughout the State. Many of the bathymetric maps produced by the U.S. Geological Survey are shown superimposed on the aerial photographs.

GLOSSARY

Acre-foot. Volume of water required to cover 1 acre to a depth of 1 foot, and equal to 43,560 ft³ (325,851 gallons).

Algae. Simple plants, many microscopic; contain chlorophyll and lack roots, stems, and leaves. Most algae are aquatic and may become a nuisance when environmental conditions are suitable for prolific growth.

Algal bloom. A large number of a particular algal species. A condition when water looks green because of the abundance of planktonic algae.

Bathymetric. Relating to the measurement of water depths, as for a lake.

Cultural eutrophication. The acceleration of the natural process of nutrient enrichment in a lake as a result of man's activities.

Emersed plant. These are large plants that can be seen without magnification. Examples of emersed plants include cattails and sedges in which the leaves or other structures extend above the water surface. In this report, rooted floating aquatic plants such as waterlilies and watershield are considered emersed.

Eutrophication, eutrophic. The enrichment of water, a natural process that may be accelerated by the activities of man; pertains to waters in which primary productivity is generally high as a consequence of a large supply of available nutrients.

Hydrogen sulfide. A gas with a distinctive "rotten egg" odor which can be detected in the hypolimnetic water containing only a few tenths of a milligram per litre of sulfide.

Intermittent or seasonal stream. Flows at certain times of the year when it receives water from springs or from some surface source, such as melting snow in mountainous areas.

Littoral. The shoreward region of a body of water.

Macrophyte. Large plants that can be seen without magnification; includes mosses and seed plants.

Marsh. Periodically wet or continually flooded areas where the surface is not deeply submerged, covered dominantly with sedges, cattails, rushes, or other plants that require marshy conditions for their growth.

Morphometry. Definition of physical shape and size, as of a water body.

Muck. A mixture containing highly decomposed organic material in which the original plant parts are not recognizable. Contains more mineral matter, and is usually darker, than peat.

Plankton. Suspended organisms that drift with the water currents.

Production. The total amount of living matter produced in an area per unit time regardless of the fate of the living matter.

Submersed plant. A rooted aquatic plant that lives and completes its life cycle entirely below the surface of the water. Examples of submersed plants include water milfoil, pondweed, and elodea.

Thermal stratification. The layering of water masses owing to different densities in response to temperature.

REFERENCES CITED

- American Public Health Association and others, 1971, Standard methods for the examination of water and wastewater [13th ed.]: New York, Am. Public Health Assoc., Inc., 874 p.
- Bortleson, G. C., Higgins, G. T., and Hill, G. W., 1974, Data on selected lakes in Washington, part 2: Washington Dept. Ecology Water-Supply Bull. 42, 145 p.
- Bretz, J H., 1959, Washington's channeled scabland: Washington Div. Mines and Geology Bull. 45, 57 p.
- Brown, Eugene, Skougstag, M. W., and Fishman, M. J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geol. Survey Water-Resources Inv. Techniques, book 5, ch. A1, 160 p.
- Collings, M. R., 1973, Data on selected lakes in Washington, part I: U.S. Geol. Survey open-file report, 179 p.
- Federal Water Pollution Control Administration, 1968, Water quality criteria: Report of the National Technical Advisory Committee to the Secretary of the Interior: Federal Water Pollution Control Admin., 234 p.
- Hunting, M. T., Bennett, W. A. G., Livingston, V. E., Jr, and Moen, W. S., 1961, Geologic map of Washington: Washington Div. Mines and Geology, single sheet.
- Hutchinson, G. E., 1957, A treatise on limnology, v. 1, Geography, physics, and chemistry: New York, John Wiley & Sons, Inc., 1015 p.
- Lee, G. F., 1970, Eutrophication: Univ. Wisconsin Water Resources Center, Occasional Paper No. 2, 39 p.
- Slack, K. V., Averett, R. C., Greeson, P. E., and Lipscomb, R. G., 1973, Methods for collection and analysis of aquatic biological and microbiological samples: U.S. Geol. Survey Water-Resources Inv. Techniques, book 5, ch. A4, 165 p.
- Washington Department of Ecology, 1973, Lakes constituting shorelines of the State Shoreline Management Act of 1971: Washington Administrative Code, ch. 173-20, 27 p.
- Wolcott, E. E., 1964, Lakes of Washington, vol. 2, Eastern Washington: Washington Div. Water Resources Water Supply Bull. 14, 650 p.
- 1965, Lakes of Washington, vol. 1, Western Washington [2d ed.]: Washington Div. Water Resources Water Supply Bull. 14, 619 p.

KING
COUNTY



B A S I C D A T A

ALICE LAKE

KING COUNTY

LATITUDE 47°31'52" LONGITUDE 121°53'24" T24N-R7E-27
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.24 SQ MI
ALTITUDE 875. FT
LAKE AREA 32. ACRES
LAKE VOLUME 260. ACRE-FT
MEAN DEPTH 8. FT
MAXIMUM DEPTH 30. FT
SHORELINE LENGTH 1.3 MI
SHORELINE CONFIGURATION 1.7
DEVELOPMENT OF VOLUME 0.27
BOTTOM SLOPE 2.2 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 66 %
NUMBER OF NEARSHORE HOMES 54
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 10 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 70 %
LAKE SURFACE 20 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

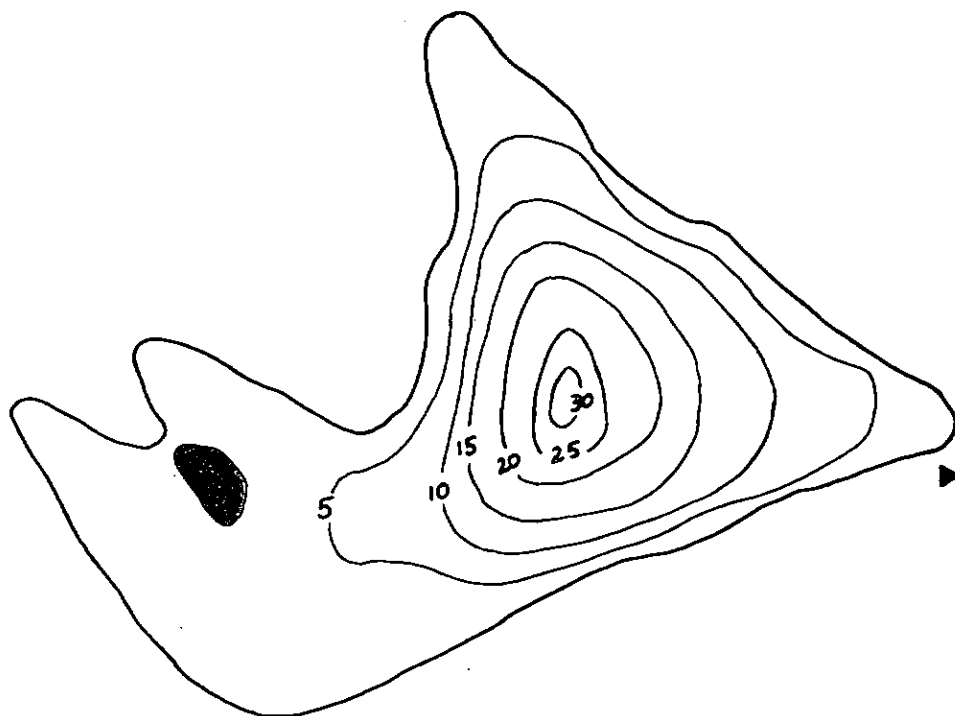
SAMPLE SITE 1
DATE 6/25/73
TIME 1030 1040
DEPTH (FT) 3. 25.
TOTAL NITRATE (N) 0.01 0.00
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.06 0.19
TOTAL ORGANIC NITROGEN (N) 0.11 0.01
TOTAL PHOSPHORUS (P) 0.011 0.018
DISSOLVED ORTHOPHOSPHATE (P) 0.002 0.002
SPECIFIC CONDUCTANCE (MICROMHOS) 14 16
WATER TEMPERATURE (DEG C) 18.9 9.6
COLOR (PLATINUM-COBALT UNITS) 10 15
SECCHI-DISC VISIBILITY (FT) 14
DISSOLVED OXYGEN 8.6 1.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 6/25/73
TIME 1100
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 3
FECAL COLIFORM, MAXIMUM (COL./100ML) 125
FECAL COLIFORM, MEAN (COL./100ML) 86

REMARKS

MOST OF THE SHORELINE IS COVERED WITH EMERSED PLANTS. A LARGE PERCENTAGE OF THE LAKE IS LESS THAN 5 FEET DEEP AND MOST OF THE LAKE BOTTOM IS COVERED WITH SUBMERSED PLANT GROWTH. IN 1973 THE U.S.GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS DONE AUGUST 17, 1973.



N



0 500 1000 FEET

EXPLANATION

— 10 —

Line of equal
water depth
Interval 5 feet

Alice Lake, King County. From Washington Department of Game, June 3, 1946.



Alice Lake, King County. May 17, 1973. Approx. scale 1:4800.

AMES LAKE

KING COUNTY

LATITUDE 47°38'40" LONGITUDE 121°57'20" T25N-R7E-19
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.84 SQ MI
 ALTITUDE 240. FT
 LAKE AREA 80. ACRES
 LAKE VOLUME 1400. ACRE-FT
 MEAN DEPTH 18. FT
 MAXIMUM DEPTH 28. FT
 SHORELINE LENGTH 1.5 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.64
 BOTTOM SLOPE 1.3 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 72 %
 NUMBER OF NEARSHORE HOMES 42
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 12 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 81 %
 LAKE SURFACE 7 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

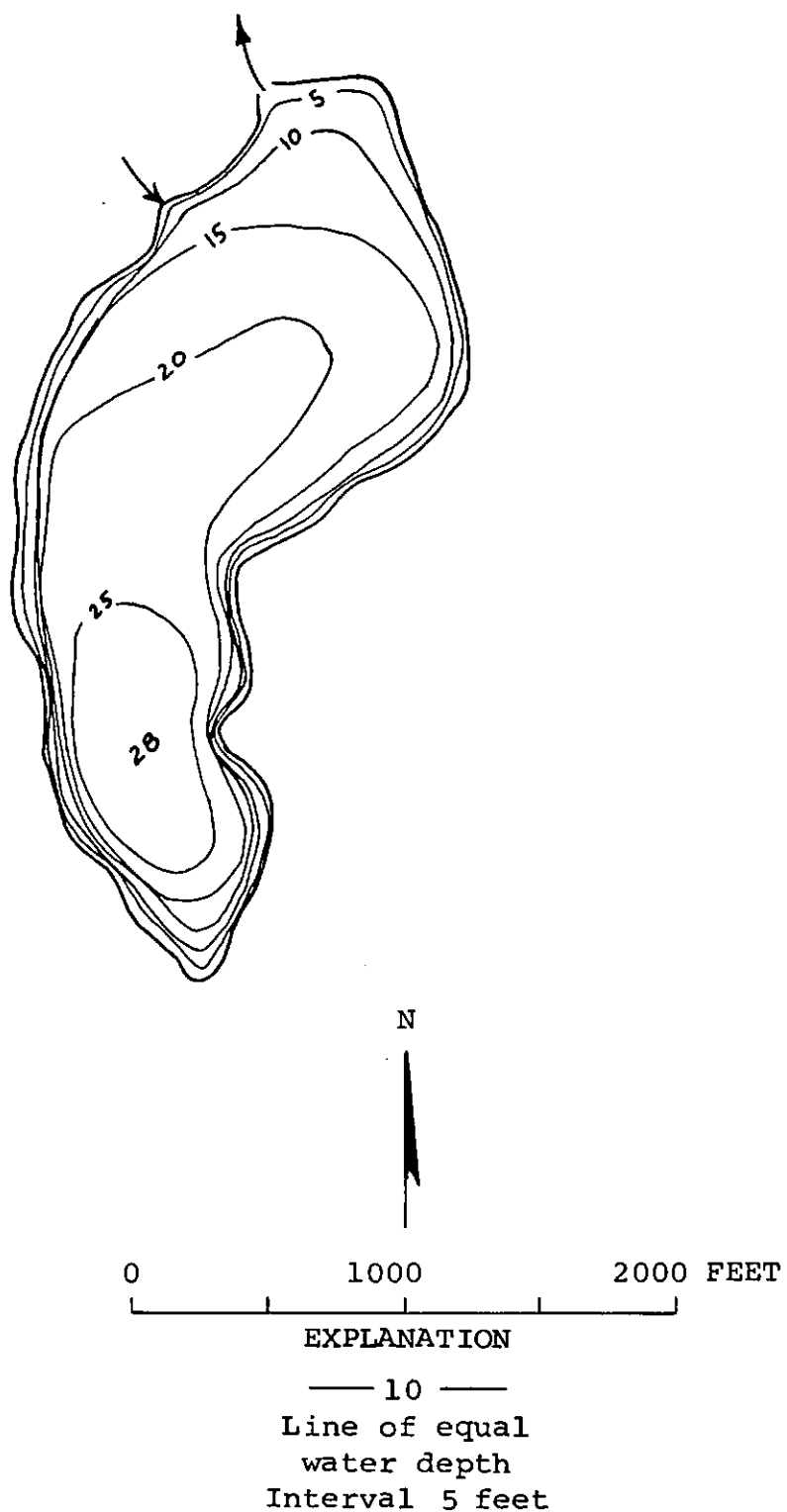
 SAMPLE SITE 1
 DATE 7/18/73
 TIME 1110 1115
 DEPTH (FT) 3. 14.
 TOTAL NITRATE (N) 0.06 0.10
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.04 0.05
 TOTAL ORGANIC NITROGEN (N) 0.24 0.20
 TOTAL PHOSPHORUS (P) 0.007 0.007
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 38 38
 WATER TEMPERATURE (DEG C) 24.2 19.2
 COLOR (PLATINUM-COBALT UNITS) 5 5
 SECCHI-DISC VISIBILITY (FT) 12
 DISSOLVED OXYGEN 9.0 8.7

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/18/73
 TIME 1110
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 EMERSED PLANTS WERE SCATTERED ALONG THE SHORE, BUT NO SUBMERSED PLANTS
 WERE OBSERVED. THE LAKE HAS NO PUBLIC ACCESS.



Ames Lake, King County. From Washington Department of Game, June 17, 1950.



Ames Lake, King County. June 2, 1970. Approx. scale 1:12,000.

ANGLE LAKE

KING COUNTY

LATITUDE 47*25'30" LONGITUDE 122*17'32" T22N-R4E-4
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.80 SQ MI
ALTITUDE 363. FT
LAKE AREA 100. ACRES
LAKE VOLUME 2600. ACRE-FT
MEAN DEPTH 25. FT
MAXIMUM DEPTH 52. FT
SHORELINE LENGTH 2.2 MI
SHORELINE CONFIGURATION 1.5
DEVELOPMENT OF VOLUME 0.48
BOTTOM SLOPE 2.2 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 100 %
NUMBER OF NEARSHORE HOMES 195
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 67 %
RESIDENTIAL SUBURBAN 8 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 5 %
LAKE SURFACE 20 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/16/73
TIME 1015 1020
DEPTH (FT) 3. 46.
TOTAL NITRATE (N) 0.02 0.02
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.03 0.15
TOTAL ORGANIC NITROGEN (N) 0.25 0.39
TOTAL PHOSPHORUS (P) 0.008 0.046
TOTAL ORTHOPHOSPHATE (P) 0.002 0.004
SPECIFIC CONDUCTANCE (MICROMHOS) 72 76
WATER TEMPERATURE (DEG C) 22.5 7.9
COLOR (PLATINUM-COBALT UNITS) 0 10
SECCHI-DISC VISIBILITY (FT) 16
DISSOLVED OXYGEN 9.4 0.5

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/16/73
TIME 1030
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 4
FECAL COLIFORM, MAXIMUM (COL./100ML) 53
FECAL COLIFORM, MEAN (COL./100ML) 31

REMARKS

THE LAKE HAS A FIRM BOTTOM WITH LITTLE MACROPHYTE GROWTH. IN 1975 THE U. S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



0 1000 2000 FEET

EXPLANATION

— 10 —

Line of equal
water depth
Interval 5 feet

Angle Lake, King County. From Washington Department of Game, January 31, 1949.



Angle Lake, King County. May 18, 1970. Approx. scale 1:12,000.

ANNETTE LAKE

KING COUNTY

LATITUDE 47°21'38" LONGITUDE 121°28'29" T22N-R10E-25
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.45 SQ MI
 ALTITUDE 3640. FT
 LAKE AREA 17. ACRES
 LAKE VOLUME 620. ACRE-FT
 MEAN DEPTH 36. FT
 MAXIMUM DEPTH 85. FT
 SHORELINE LENGTH 0.66 MI
 SHORELINE CONFIGURATION 1.1
 DEVELOPMENT OF VOLUME 0.43
 BOTTOM SLOPE 8.7 %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 94 %
 LAKE SURFACE 6 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

 SAMPLE SITE 1
 DATE 8/ 8/73
 TIME 1025 1030
 DEPTH (FT) 3. 75.
 TOTAL NITRATE (N) 0.03 0.09
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.01 0.09
 TOTAL ORGANIC NITROGEN (N) 0.01 0.01
 TOTAL PHOSPHORUS (P) 0.004 0.011
 TOTAL ORTHOPHOSPHATE (P) 0.003 0.003
 SPECIFIC CONDUCTANCE (MICROMHOS) 13 14
 WATER TEMPERATURE (DEG C) 17.0 4.5
 COLOR (PLATINUM-COBALT UNITS) 0 0
 SECCHI-DISC VISIBILITY (FT) 49
 DISSOLVED OXYGEN 8.5 5.3

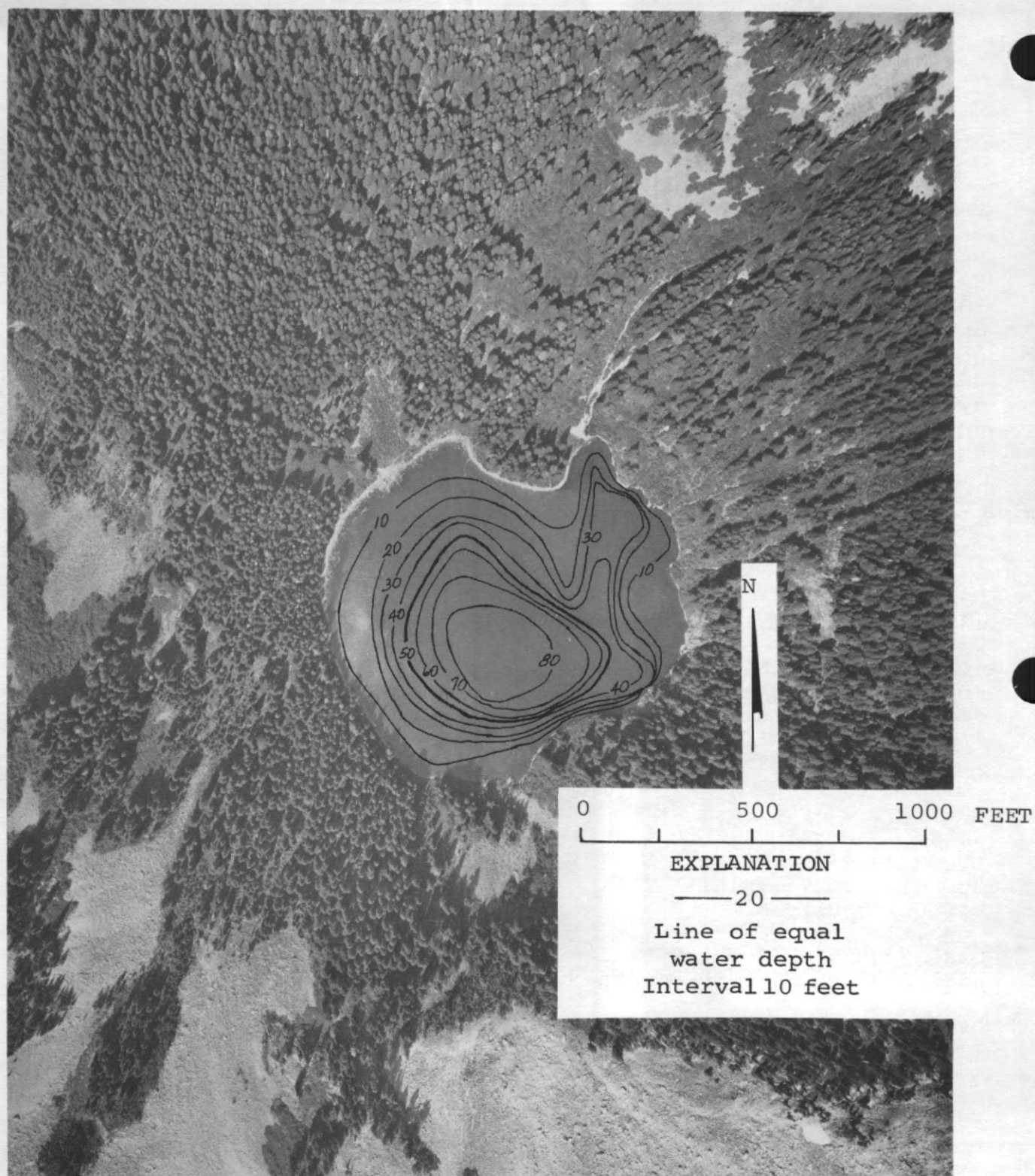
LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE 8/ 8/73
 TIME 1040
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 NO AQUATIC PLANTS WERE OBSERVED.



Annette Lake, King County. Bathymetric map from
U.S. Geological Survey, September 3, 1973.
Aerial photo, August 3, 1973.

BASS LAKE

KING COUNTY

LATITUDE 47°15'23" LONGITUDE 121°59'49" T20N-R6E-2
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 2.47 SQ MI
ALTITUDE 665. FT
LAKE AREA 23. ACRES
LAKE VOLUME 270. ACRE-FT
MEAN DEPTH 12. FT
MAXIMUM DEPTH 26. FT
SHORELINE LENGTH 0.89 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.44
BOTTOM SLOPE 2.3 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 12 %
NUMBER OF NEARSHORE HOMES 2
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 72 %
FOREST OR UNPRODUCTIVE 27 %
LAKE SURFACE 1 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

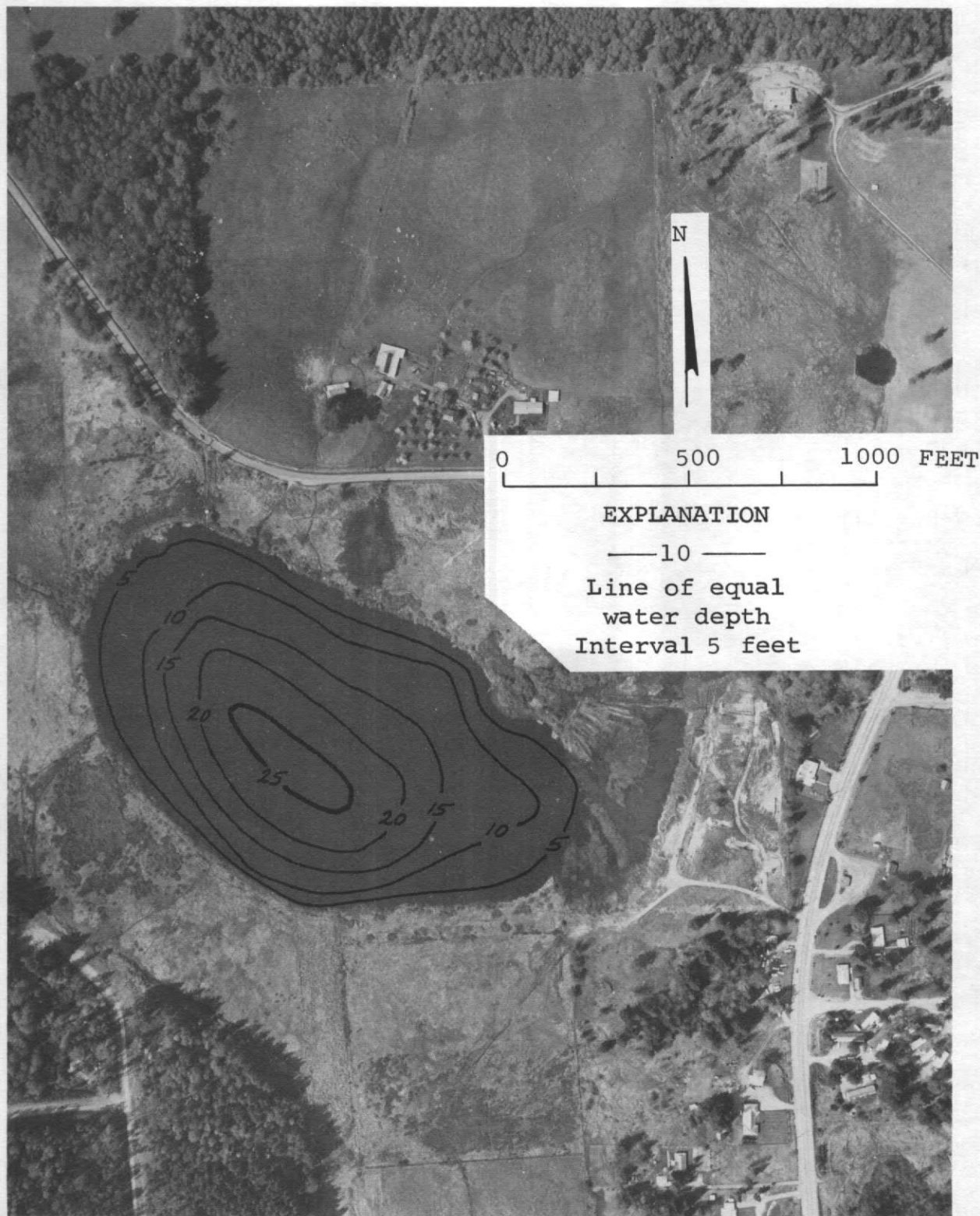
SAMPLE SITE 1
DATE 7/10/73
TIME 1350 1400
DEPTH (FT) 3. 21.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.08 0.01
TOTAL ORGANIC NITROGEN (N) 0.30 0.83
TOTAL PHOSPHORUS (P) 0.020 0.057
TOTAL ORTHOPHOSPHATE (P) 0.005 0.019
SPECIFIC CONDUCTANCE (MICROMHOS) 82 99
WATER TEMPERATURE (DEG C) 22.1 8.5
COLOR (PLATINUM-COBALT UNITS) 25 300
SECCHI-DISC VISIBILITY (FT) 6
DISSOLVED OXYGEN 9.4 0.5

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/10/73
TIME 1430
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) 9
FECAL COLIFORM, MEAN (COL./100ML) 4

REMARKS

THE SHORELINE OF THE LAKE IS MARSH-LIKE. THE LITTORAL BOTTOM IS MOSTLY MUCK. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Bass Lake, King County. Bathymetric map from
U.S. Geological Survey, July 2, 1973.
Aerial photo, April 30, 1973.

BEAVER LAKE

KING COUNTY

LATITUDE 47°15'44" LONGITUDE 122° 0' 8" T21N-R6E-35
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 2.73 SQ MI
ALTITUDE 670. FT
LAKE AREA 12. ACRES
LAKE VOLUME 110. ACRE-FT
MEAN DEPTH 9. FT
MAXIMUM DEPTH 16. FT
SHORELINE LENGTH 0.61 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.56
BOTTOM SLOPE 1.9 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 9 %
NUMBER OF NEARSHORE HOMES 2
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 75 %
FOREST OR UNPRODUCTIVE 24 %
LAKE SURFACE 1 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/10/73
TIME 1315 1320
DEPTH (FT) 3. 12.
TOTAL NITRATE (N) 0.01 0.02
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.09 0.19
TOTAL ORGANIC NITROGEN (N) 0.33 0.57
TOTAL PHOSPHORUS (P) 0.020 0.055
TOTAL ORTHOPHOSPHATE (P) 0.005 0.010
SPECIFIC CONDUCTANCE (MICROMHOS) 73 81
WATER TEMPERATURE (DEG C) 21.0 13.5
COLOR (PLATINUM-COBALT UNITS) 25 30
SECCHI-DISC VISIBILITY (FT) 6
DISSOLVED OXYGEN 7.9 1.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 7/10/73
TIME 1330
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 3
FECAL COLIFORM, MAXIMUM (COL./100ML) 4
FECAL COLIFORM, MEAN (COL./100ML) 3

REMARKS

THE LAKE HAD A HEAVY COVER OF BOTH EMERSED AND SUBMERSED PLANTS. THE
LITTORAL BOTTOM IS MOSTLY MUCK.



Beaver Lake, King County. Bathymetric map from
U.S. Geological Survey, July 3, 1973.
Aerial photo, April 30, 1973.

BEAVER NO.1 LAKE

KING COUNTY

LATITUDE 47°35'37" LONGITUDE 121°59'29" T24N-R6E-2
SAMMAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.40 SQ MI
ALTITUDE 407. FT
LAKE AREA 13. ACRES
LAKE VOLUME 290. ACRE-FT
MEAN DEPTH 22. FT
MAXIMUM DEPTH 55. FT
SHORELINE LENGTH 0.59 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.40
BOTTOM SLOPE 6.5 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 35 %
NUMBER OF NEARSHORE HOMES 13
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 4 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 91 %
LAKE SURFACE 5 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

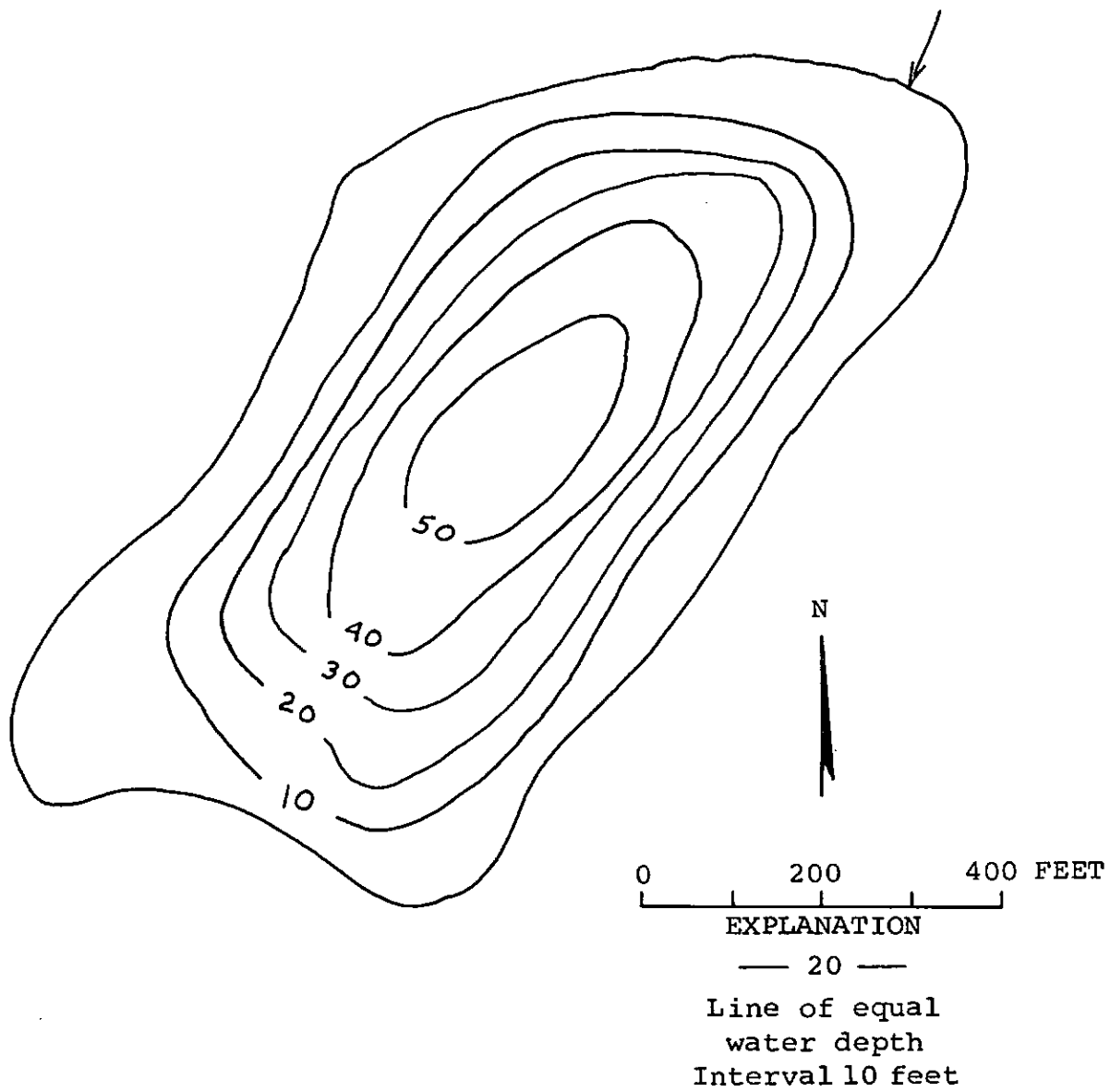
DATE 7/13/73
TIME 1330 1340
DEPTH (FT) 3. 49.
TOTAL NITRATE (N) 0.01 0.26
TOTAL NITRITE (N) 0.00 0.02
TOTAL AMMONIA (N) 0.06 0.34
TOTAL ORGANIC NITROGEN (N) 0.32 0.46
TOTAL PHOSPHORUS (P) 0.016 0.069
TOTAL ORTHOPHOSPHATE (P) 0.005 0.042
SPECIFIC CONDUCTANCE (MICROMHOS) 29 33
WATER TEMPERATURE (DEG C) 21.9 4.8
COLOR (PLATINUM-COBALT UNITS) 55 90
SECCHI-DISC VISIBILITY (FT) 7
DISSOLVED OXYGEN 8.5 0.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/13/73
TIME 1350
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) 7
FECAL COLIFORM, MEAN (COL./100ML) 3

REMARKS

BEAVER NO. 1 IS THE UPSTREAM LAKE IN A CONNECTING SERIES OF THREE LAKES.
THE LAKE HAS SUBMERSED LOGS ALONG THE SHORE.



Beaver No. 1 Lake, King County. From Washington Department of Game, date unknown.



Beaver No. 1 Lake, King County May 1, 1973. Approx. scale 1:4800.

BEAVER NO. 2 LAKE

KING COUNTY

LATITUDE 47°35'10" LONGITUDE 122° 0' 3" T24N-R6E-11
SAMMAMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

DRAINAGE AREA	1.14 SQ MI	RESIDENTIAL DEVELOPMENT	87 %
ALTITUDE	406. FT	NUMBER OF NEARSHORE HOMES	54
LAKE AREA	62. ACRES	LAND USE IN DRAINAGE BASIN	
LAKE VOLUME	1300. ACRE-FT	RESIDENTIAL URBAN	0 %
MEAN DEPTH	21. FT	RESIDENTIAL SUBURBAN	7 %
MAXIMUM DEPTH	54. FT	AGRICULTURAL	0 %
SHORELINE LENGTH	2.0 MI	FOREST OR UNPRODUCTIVE	83 %
SHORELINE CONFIGURATION	1.8	LAKE SURFACE	10 %
DEVELOPMENT OF VOLUME	0.39		
BOTTOM SLOPE	2.9 %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

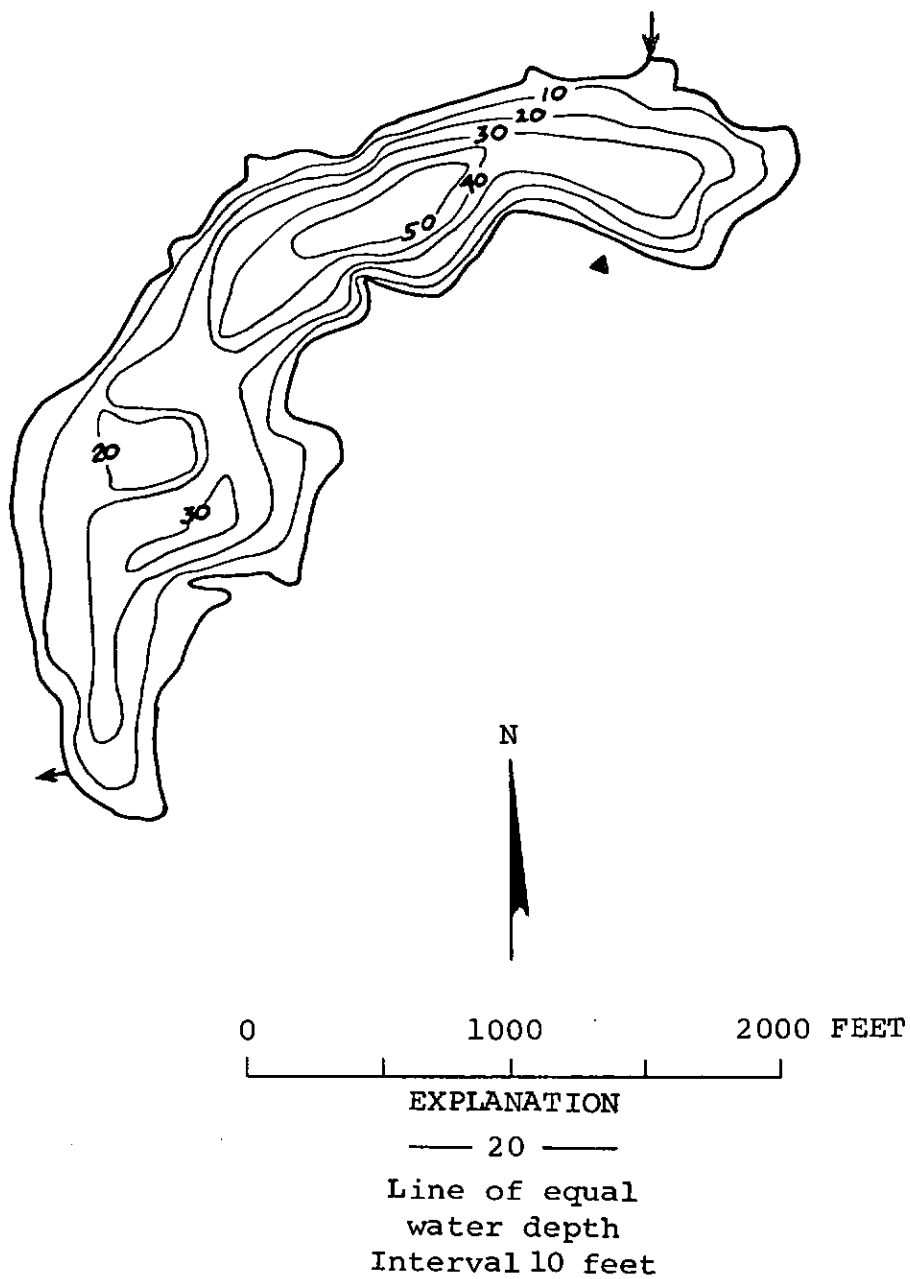
SAMPLE SITE	1
DATE	7/13/73
TIME	1445 1450
DEPTH (FT)	3. 49.
TOTAL NITRATE (N)	0.01 0.25
TOTAL NITRITE (N)	0.00 0.01
TOTAL AMMONIA (N)	0.04 0.11
TOTAL ORGANIC NITROGEN (N)	0.23 0.16
TOTAL PHOSPHORUS (P)	0.011 0.026
TOTAL ORTHOPHOSPHATE (P)	0.004 0.016
SPECIFIC CONDUCTANCE (MICROMHOS)	30 --
WATER TEMPERATURE (DEG C)	22.0 7.0
COLOR (PLATINUM-COBALT UNITS)	25 --
SECCHI-DISC VISIBILITY (FT)	11
DISSOLVED OXYGEN	9.0 1.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	7/13/73
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

BEAVER NO. 2 IS THE SECOND IN A SERIES OF LAKES. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Beaver No. 2 Lake, King County. From Washington Department of Game, date unknown.



Beaver No. 2 Lake, King County. June 1, 1970. Approx. scale 1:12,000.

BITTER LAKE

KING COUNTY

LATITUDE 47°43'31" LONGITUDE 122°20'55" T26N-R4E-19
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.51 SQ MI
 ALTITUDE 438. FT
 LAKE AREA 19. ACRES
 LAKE VOLUME 300. ACPE-FT
 MEAN DEPTH 16. FT
 MAXIMUM DEPTH 31. FT
 SHORELINE LENGTH 0.86 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.51
 BOTTOM SLOPE 3.0 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL ABSENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 67 %
 NUMBER OF NEARSHORE HOMES 46
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 52 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 42 %
 LAKE SURFACE 6 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

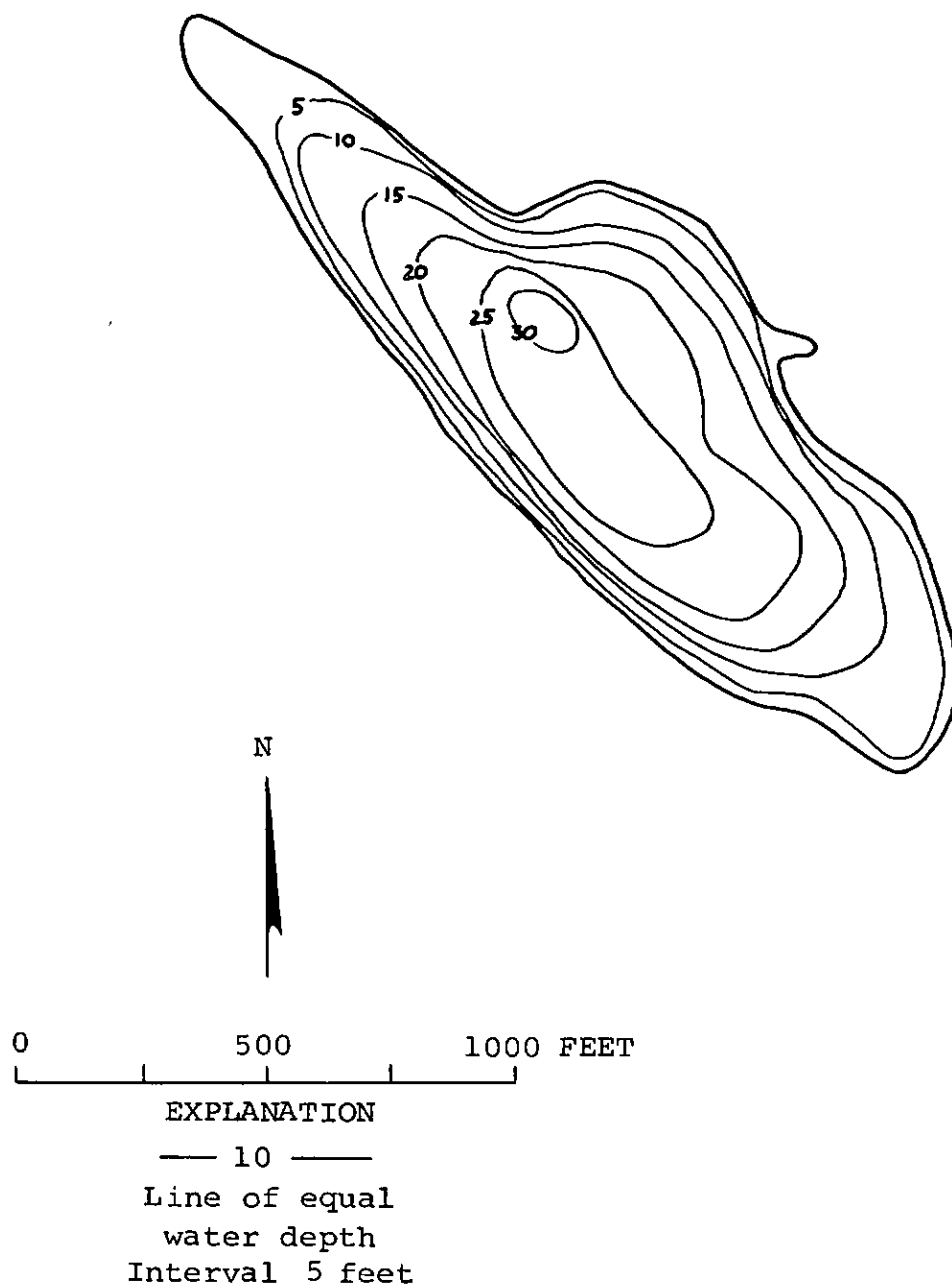
 DATE 8/ 7/73
 TIME 1510 1515
 DEPTH (FT) 3. 20.
 TOTAL NITRATE (N) 0.01 0.07
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.05 0.10
 TOTAL ORGANIC NITROGEN (N) 0.21 0.19
 TOTAL PHOSPHORUS (P) 0.031 0.041
 TOTAL ORTHOPHOSPHATE (P) 0.017 0.006
 SPECIFIC CONDUCTANCE (MICROMHOS) 61 66
 WATER TEMPERATURE (DEG C) 21.2 14.2
 COLOR (PLATINUM-COBALT UNITS) 5 15
 SECCHI-DISC VISIBILITY (FT) 9
 DISSOLVED OXYGEN 8.0 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 7/73
 TIME 1600
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 19
 FECAL COLIFORM, MAXIMUM (COL./100ML) 32
 FECAL COLIFORM, MEAN (COL./100ML) 25

REMARKS

 THE LAKE IS LOCATED WITHIN THE CITY LIMITS OF SEATTLE.



Ritter Lake, King County. From Washington Department of Game, January 29, 1949.



Bitter Lake, King County. May 13, 1973. Approx. scale 1:4800.

BLACK LAKE

KING COUNTY

LATITUDE 47°38'39" LONGITUDE 121°43'25" T25N-R8E-13
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.24 SQ MI
 ALTITUDE 1270. FT
 LAKE AREA 25. ACRES
 LAKE VOLUME 550. ACRE-FT
 MEAN DEPTH 22. FT
 MAXIMUM DEPTH 38. FT
 SHORELINE LENGTH 0.85 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.58
 BOTTOM SLOPE 3.2 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 84 %
 LAKE SURFACE 16 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

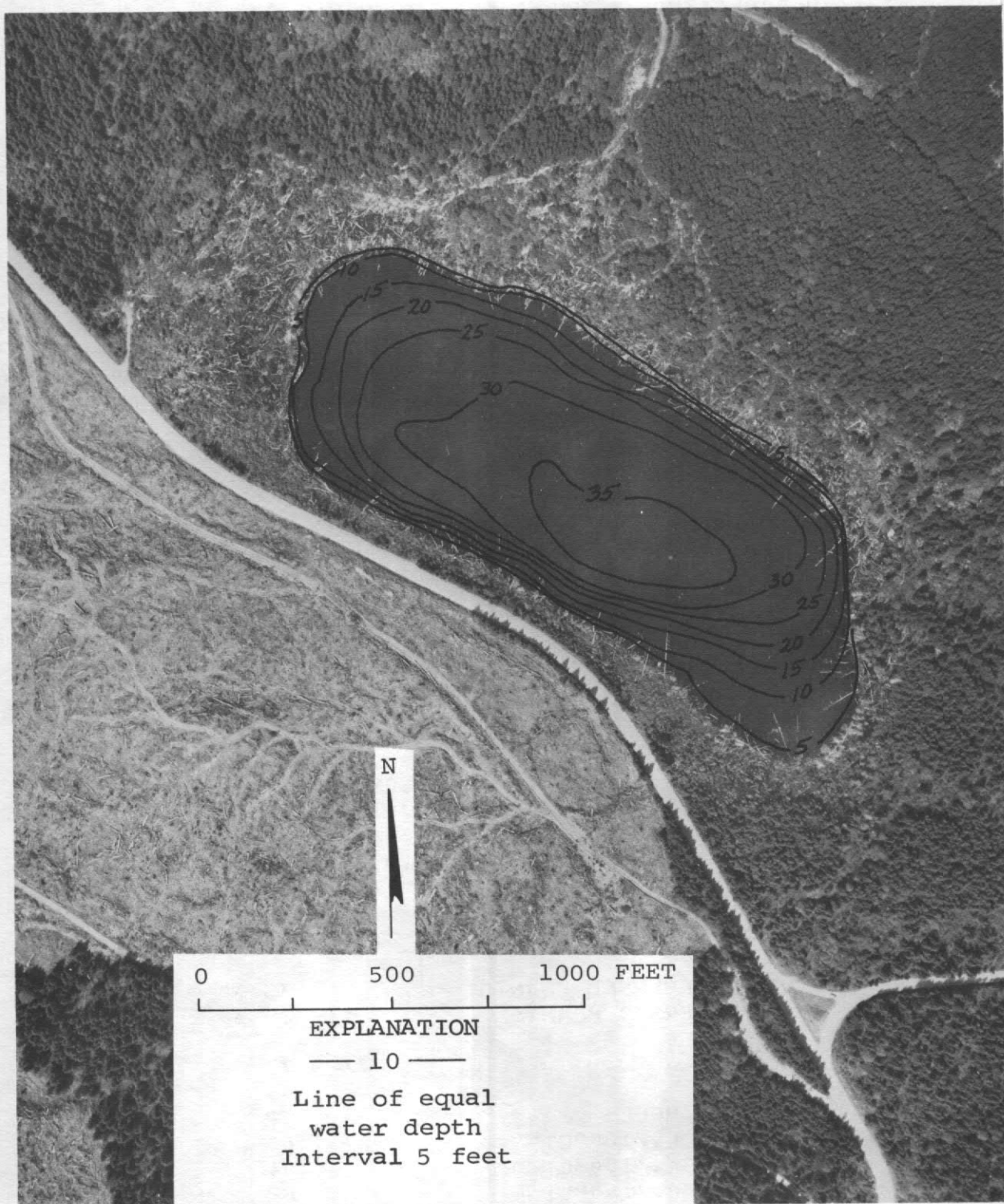
 SAMPLE SITE 1
 DATE 7/12/73
 TIME 1530 1540
 DEPTH (FT) 3. 28.
 TOTAL NITRATE (N) 0.02 0.01
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.14 0.27
 TOTAL ORGANIC NITROGEN (N) 0.66 0.18
 TOTAL PHOSPHORUS (P) 0.032 0.039
 TOTAL ORTHOPHOSPHATE (P) 0.007 0.007
 SPECIFIC CONDUCTANCE (MICROMHOS) 23 29
 WATER TEMPERATURE (DEG C) 21.2 6.1
 COLOR (PLATINUM-COBALT UNITS) 45 65
 SECCHI-DISC VISIBILITY (FT) 5
 DISSOLVED OXYGEN 9.9 0.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/12/73
 TIME 1540
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 3
 FECAL COLIFORM, MEAN (COL./100ML) 1

REMARKS

 THE SHORELINE WAS COVERED WITH A BAND OF LILIES GROWING BETWEEN MANY
 LOGS AND SNAGS. A MILD ALGAL BLOOM, OR A HIGH ALGAL DENSITY, WAS
 OBSERVED. THE SURROUNDING HILLS HAVE BEEN LOGGED RECENTLY.



Black Lake, King County. Bathymetric map from
U.S. Geological Survey, July 9, 1973.
Aerial photo, May 1, 1973.

BLACK DIAMOND LAKE

KING COUNTY

LATITUDE 47°17'47" LONGITUDE 122° 1' 5" T21N-R6E-22
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.67 SQ MI
ALTITUDE 538. FT
LAKE AREA 11. ACRES
LAKE VOLUME 68. ACRE-FT
MEAN DEPTH 6. FT
MAXIMUM DEPTH 8. FT
SHORELINE LENGTH 0.59 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.77
BOTTOM SLOPE 1.0 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 5 %
NUMBER OF NEARSHORE HOMES 1
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 1 %
FOREST OR UNPRODUCTIVE 96 %
LAKE SURFACE 3 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

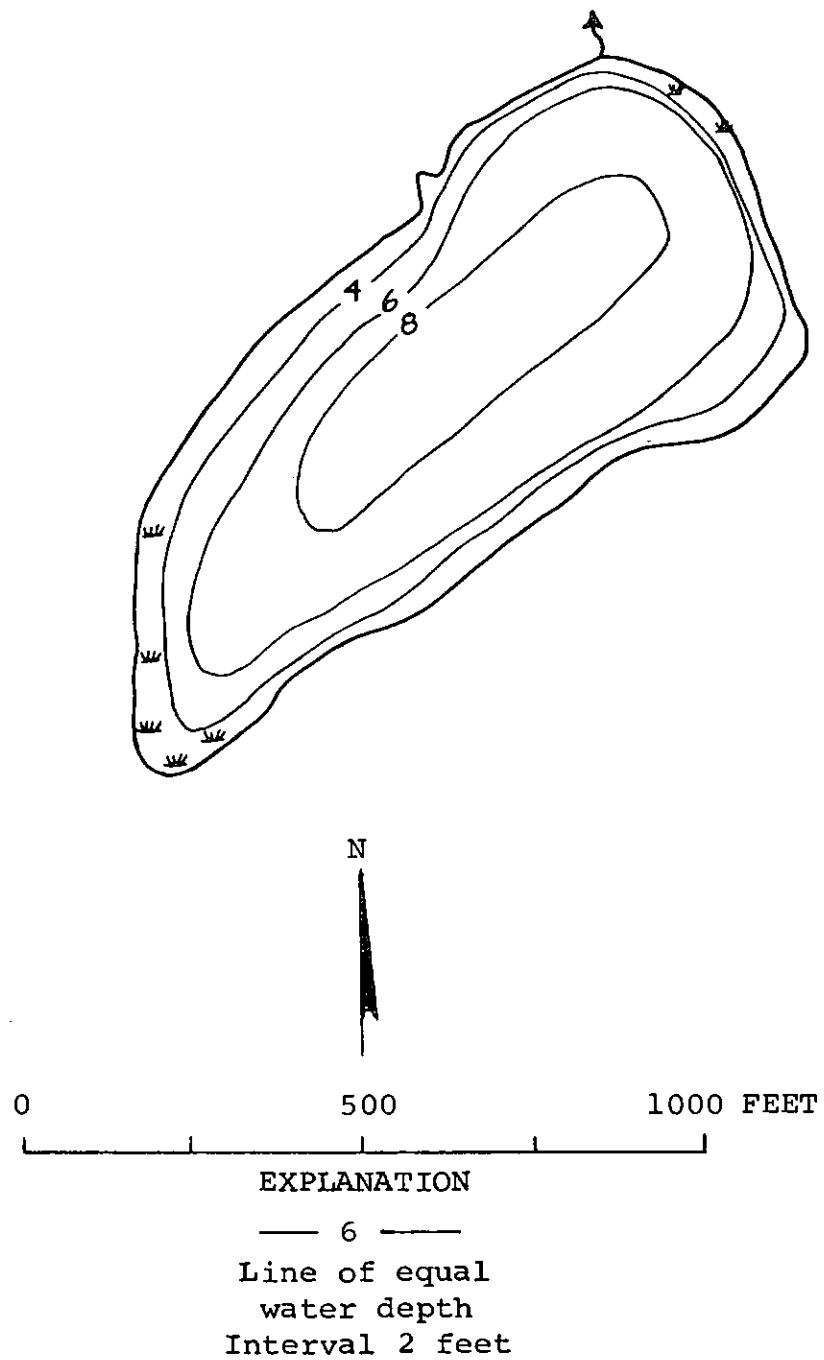
DATE 7/ 9/73
TIME 1535 1540
DEPTH (FT) 3. 5.
TOTAL NITRATE (N) 0.03 --
TOTAL NITRITE (N) 0.01 --
TOTAL AMMONIA (N) 0.84 --
TOTAL ORGANIC NITROGEN (N) 2.0 --
TOTAL PHOSPHORUS (P) 0.095 --
TOTAL ORTHOPHOSPHATE (P) 0.019 --
SPECIFIC CONDUCTANCE (MICROMHOS) 64 --
WATER TEMPERATURE (DEG C) 19.2 15.3
COLOR (PLATINUM-COBALT UNITS) 70 --
SECCHI-DISC VISIBILITY (FT) 2
DISSOLVED OXYGEN 2.8 0.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 7/ 9/73
TIME 1545
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 60
FECAL COLIFORM, MAXIMUM (COL./100ML) 104
FECAL COLIFORM, MEAN (COL./100ML) 82

REMARKS

THE SHORELINE WAS COVERED WITH EMERSED PLANTS; HOWEVER, NO SUBMERSED PLANTS WERE OBSERVED. AN ALGAL BLOOM WAS OBSERVED. THE LITTORAL BOTTOM IS MUCK.



Black Diamond Lake, King County. From Washington Department of Game, June 18, 1957.



Black Diamond Lake, King County. May 17, 1973. Approx. scale 1:4800.

BOREN LAKE

KING COUNTY

LATITUDE 47°31'52" LONGITUDE 122° 9'45" T24N-R5E-28
LAKE WASHINGTON BASIN

PHYSICAL DATA

DRAINAGE AREA 1.07 SQ MI
ALTITUDE 1047. FT
LAKE AREA 18. ACRES
LAKE VOLUME 330. ACRE-FT
MEAN DEPTH 18. FT
MAXIMUM DEPTH 34. FT
SHORELINE LENGTH 0.70 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.53
BOTTOM SLOPE 3.4 %
BASIN GEOLOGY SED./META.
INFLOW PERENNIAL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 70 %
NUMBER OF NEARSHORE HOMES 22
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 24 %
AGRICULTURAL 5 %
FOREST OR UNPRODUCTIVE 68 %
LAKE SURFACE 3 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

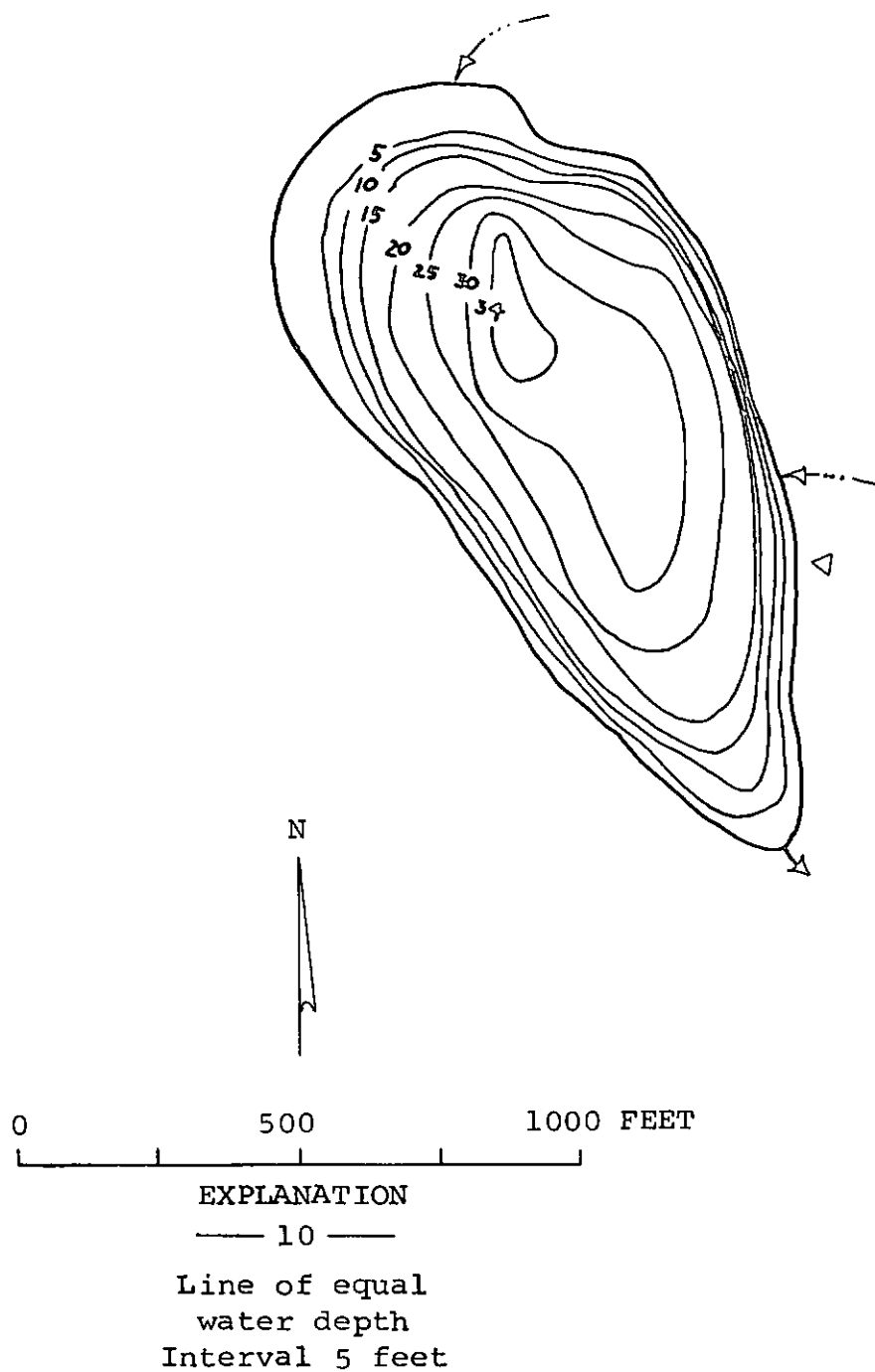
SAMPLE SITE 1
DATE 6/23/72
TIME 1145 1155
DEPTH (FT) 3. 27.
DISSOLVED NITRATE (N) 0.17 0.69
TOTAL NITRITE (N) 0.01 0.00
TOTAL AMMONIA (N) 0.09 0.02
TOTAL ORGANIC NITROGEN (N) 0.38 0.31
TOTAL PHOSPHORUS (P) 0.020 0.010
DISSOLVED ORTHOPHOSPHATE (P) 0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS) 106 106
WATER TEMPERATURE (DEG C) 17.3 7.9
COLOR (PLATINUM-COBALT UNITS) 30 30
SECCHI-DISC VISIBILITY (FT) 8
DISSOLVED OXYGEN 9.5 1.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

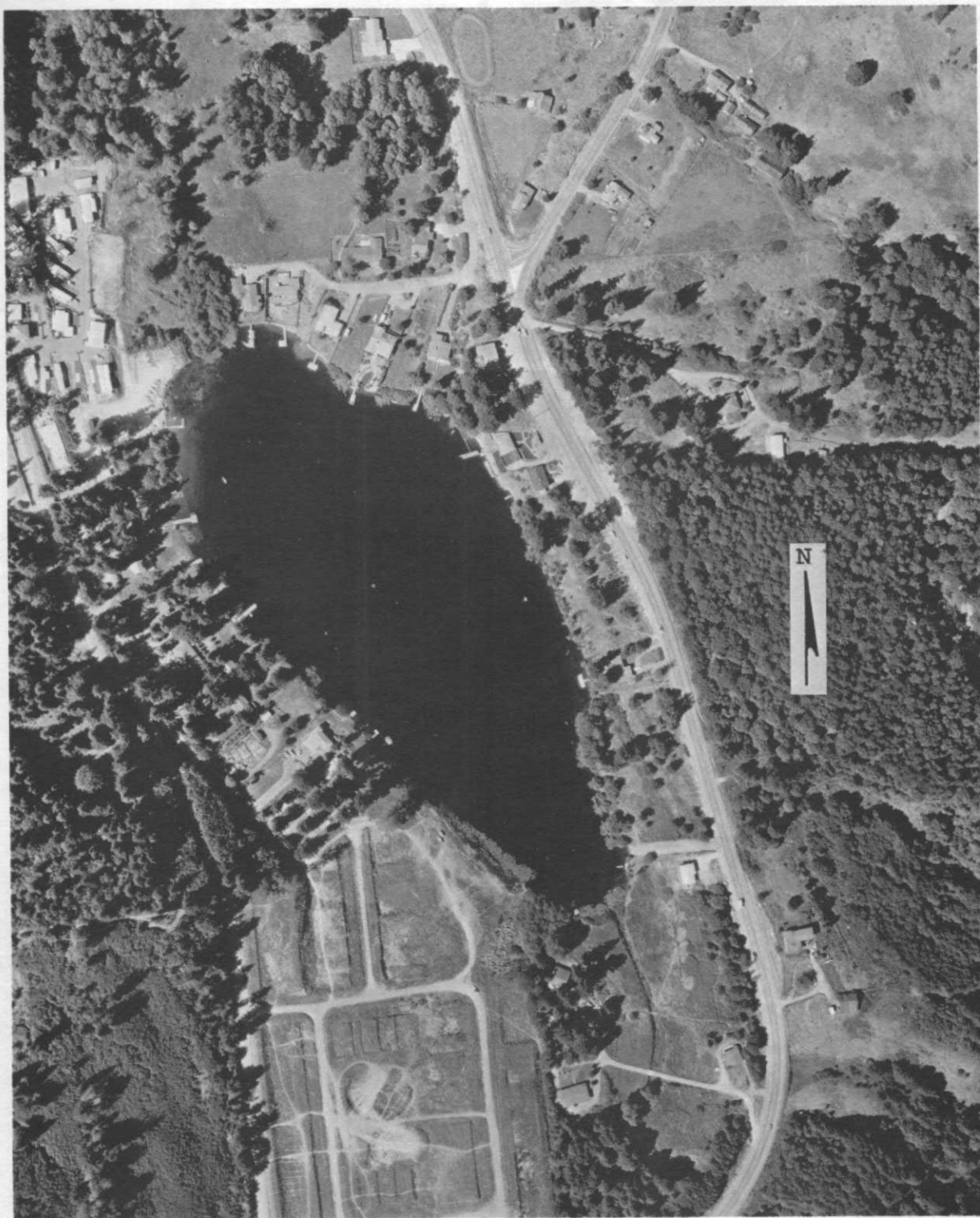
DATE 6/23/72
TIME 1230
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 8
FECAL COLIFORM, MAXIMUM (COL./100ML) 48
FECAL COLIFORM, MEAN (COL./100ML) 27

REMARKS

THE LITTORAL BOTTOM IS MOSTLY MUCK. IN 1972, THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE SECCHI-DISC VALUE FOR THE SAMPLING DATE SHOWN ABOVE WAS MISSED; THEREFORE, THE SECCHI DISC VALUE SHOWN IS THE MEAN OF FOUR SAMPLING PERIODS IN 1972. THE PLANT SURVEY WAS CONDUCTED ON OCTOBER 6, 1972.



Boren Lake, King County. From Washington Department of Game, October 4, 1946.



Boren Lake, King County. August 9, 1972. Approx. scale 1:4100.

BOYLE LAKE

KING COUNTY

LATITUDE 47°35'58" LONGITUDE 121°45'22" T24N-R8E-2
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

DRAINAGE AREA	0.88 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1047. FT	NUMBER OF NEARSHORE HOMES	0
LAKE AREA	22. ACRES	LAND USE IN DRAINAGE BASIN	
LAKE VOLUME	640. ACRE-FT	RESIDENTIAL URBAN	0 %
MEAN DEPTH	29. FT	RESIDENTIAL SUBURBAN	0 %
MAXIMUM DEPTH	55. FT	AGRICULTURAL	0 %
SHORELINE LENGTH	0.77 MI	FOREST OR UNPRODUCTIVE	90 %
SHORELINE CONFIGURATION	1.2	LAKE SURFACE	10 %
DEVELOPMENT OF VOLUME	0.52		
BOTTOM SLOPE	5.0 %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

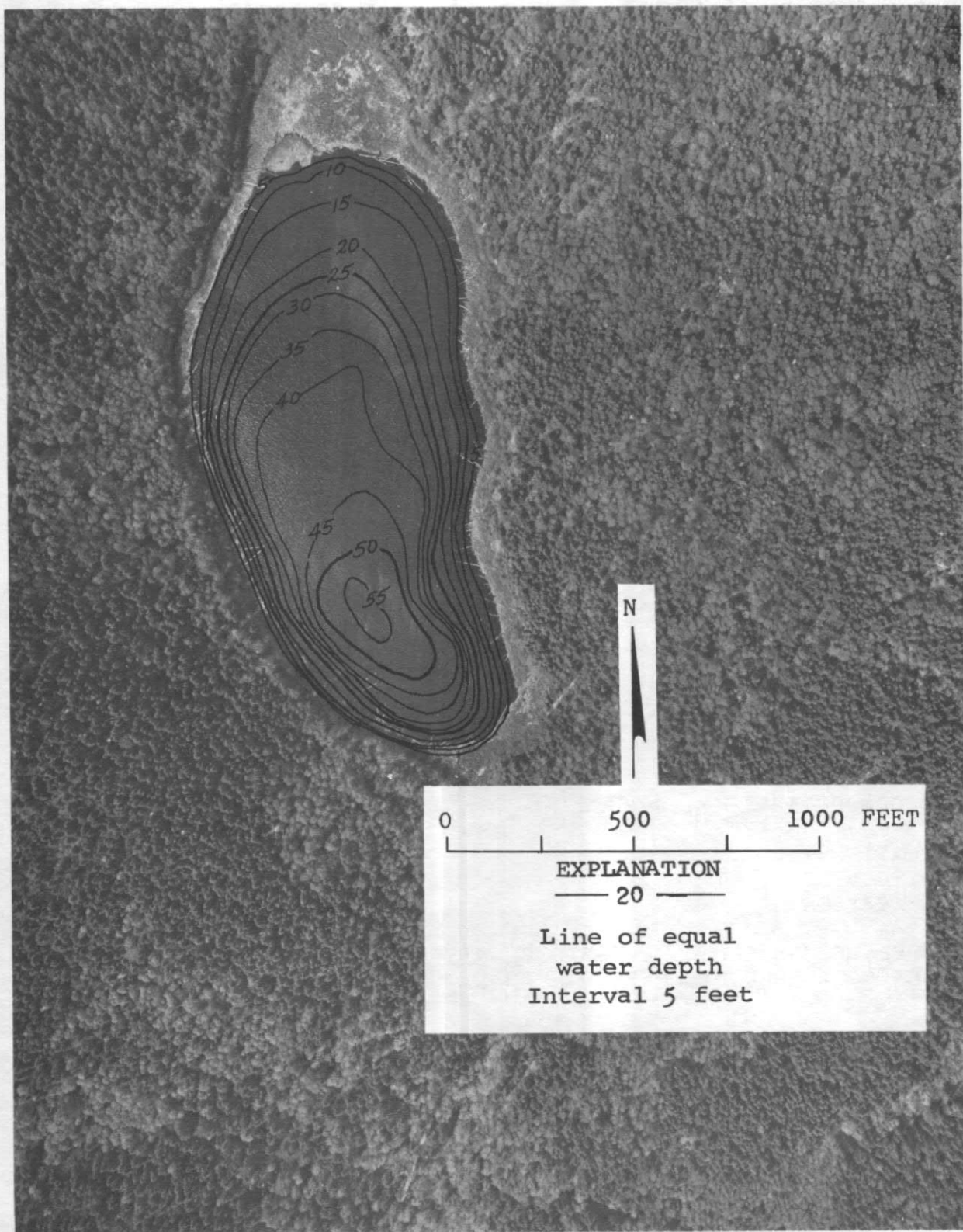
SAMPLE SITE	1
DATE	7/12/73
TIME	1230 1235
DEPTH (FT)	3. 39.
TOTAL NITRATE (N)	0.39 0.76
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.04 0.05
TOTAL ORGANIC NITROGEN (N)	0.34 0.22
TOTAL PHOSPHORUS (P)	0.011 0.011
TOTAL ORTHOPHOSPHATE (P)	0.003 0.001
SPECIFIC CONDUCTANCE (MICROMHOS)	33 33
WATER TEMPERATURE (DEG C)	21.0 4.9
COLOR (PLATINUM-COBALT UNITS)	35 35
SECCHI-DISC VISIBILITY (FT)	7
DISSOLVED OXYGEN	9.7 2.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/12/73
TIME	1310
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE MIDDLE LAKE IN A SERIES OF THREE LAKES. THE INFLOW DRAINS A MARSH WHICH MAY BE RESPONSIBLE FOR THE SLIGHT TEA COLOR OF THE WATER. THE LITTORAL BOTTOM IS MUCK. MANY LOGS AND SNAGS COVER THE SHORELINE.



Boyle Lake, King County. Bathymetric map from
U.S. Geological Survey, September 7, 1973.
Aerial photo, May 1, 1973.

BRIDGES LAKE

KING COUNTY

LATITUDE 47°36'15" LONGITUDE 121°45'18" T25N-R8E-35
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.56 SQ MI
 ALTITUDE 1043. FT
 LAKE AREA 29. ACRES
 LAKE VOLUME 640. ACRE-FT
 MEAN DEPTH 22. FT
 MAXIMUM DEPTH 38. FT
 SHORELINE LENGTH 0.98 MI
 SHORELINE CONFIGURATION 1.3
 DEVELOPMENT OF VOLUME 0.58
 BOTTOM SLOPE 3.0 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 91 %
 LAKE SURFACE 9 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

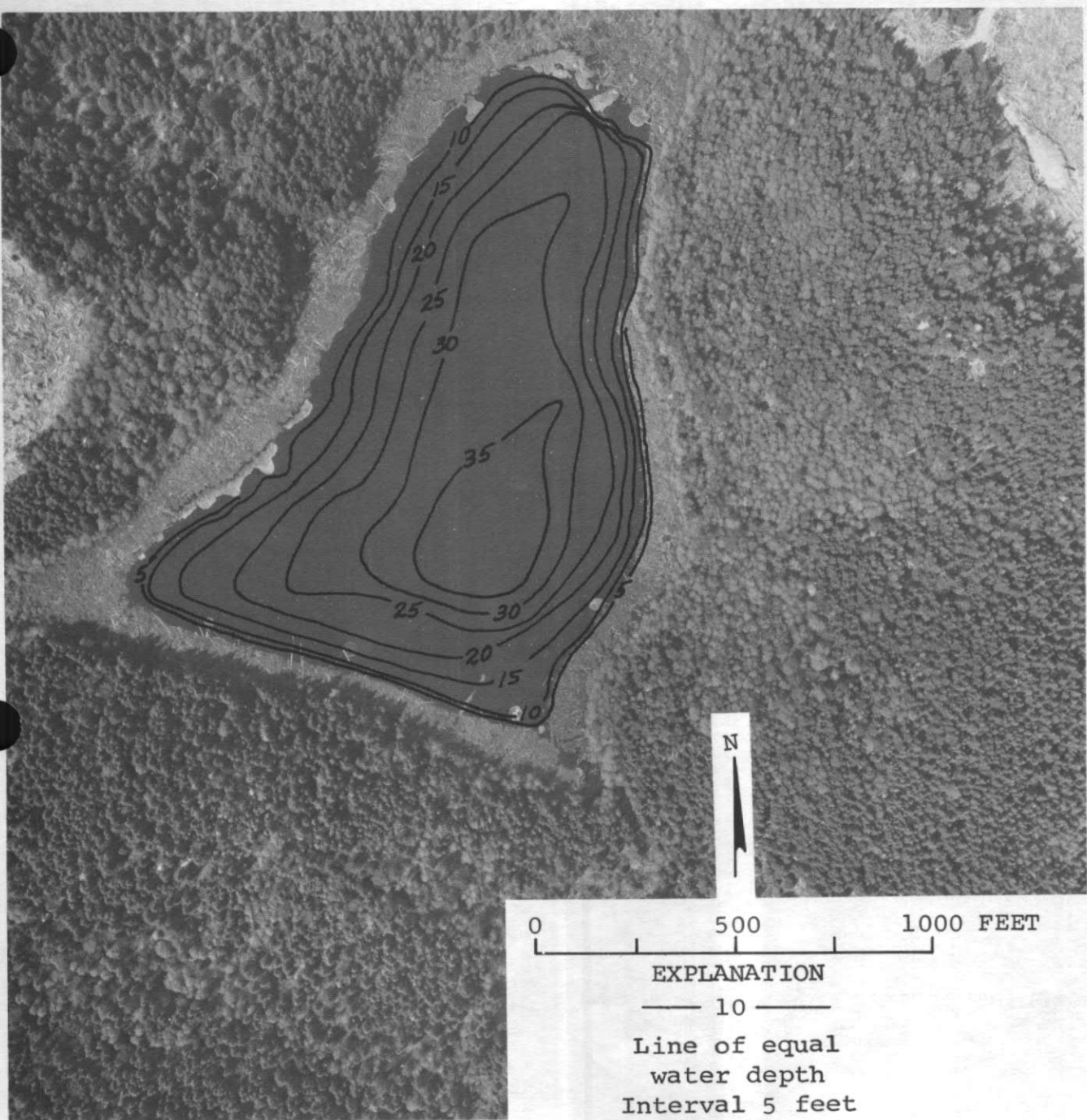
 DATE 7/12/73
 TIME 1400 1410
 DEPTH (FT) 3. 28.
 TOTAL NITRATE (N) 0.13 1.5
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.07 0.40
 TOTAL ORGANIC NITROGEN (N) 0.47 7.5
 TOTAL PHOSPHORUS (P) 0.015 0.013
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.003
 SPECIFIC CONDUCTANCE (MICROMHOS) 31 40
 WATER TEMPERATURE (DEG C) 21.0 5.3
 COLOR (PLATINUM-COBALT UNITS) 55 45
 SECCHI-DISC VISIBILITY (FT) 6
 DISSOLVED OXYGEN 7.8 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/12/73
 TIME 1440
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 THE TOP LAKE IN A SERIES OF THREE LAKES. THE INFLOW DRAINS A MARSH WHICH
 MAY BE RESPONSIBLE FOR THE SLIGHT TEA COLOR OF THE WATER. THE LITTORAL
 BOTTOM IS MUCK. MANY LOGS AND SNAGS COVER THE SHORELINE.



Bridges Lake, King County. Bathymetric map from
U.S. Geological Survey, September 7, 1973.
Aerial photo, May 1, 1973.

BURIEN LAKE

KING COUNTY

LATITUDE 47°27'59" LONGITUDE 122°20'51" T23N-R4E-19
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.39 SQ MI
 ALTITUDE 320. FT
 LAKE AREA 44. ACRES
 LAKE VOLUME 560. ACRE-FT
 MEAN DEPTH 13. FT
 MAXIMUM DEPTH 29. FT
 SHORELINE LENGTH 1.1 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.43
 BOTTOM SLOPE 1.8 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 100 %
 NUMBER OF NEARSHORE HOMES 112
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 82 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 0 %
 LAKE SURFACE 18 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

 DATE 7/16/73
 TIME 1120 1130
 DEPTH (FT) 3. 12.
 TOTAL NITRATE (N) 0.01 0.01
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.02
 TOTAL ORGANIC NITROGEN (N) 0.27 0.33
 TOTAL PHOSPHORUS (P) 0.011 0.016
 TOTAL ORTHOPHOSPHATE (P) 0.007 0.007
 SPECIFIC CONDUCTANCE (MICROMHOS) 81 80
 WATER TEMPERATURE (DEG C) 23.2 22.2
 COLOR (PLATINUM-COBALT UNITS) 5 5
 SECCHI-DISC VISIBILITY (FT) 10
 DISSOLVED OXYGEN 8.7 8.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/16/73
 TIME 1135
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) 15
 FECAL COLIFORM, MAXIMUM (COL./100ML) 57
 FECAL COLIFORM, MEAN (COL./100ML) 36

REMARKS

 METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



EXPLANATION
 — 10 —
 Line of equal
 water depth
 Interval 5 feet

Burien Lake, King County. Bathymetric map from
 U.S. Geological Survey, July 3, 1973.
 Aerial photo, April 30, 1970.

CALLIGAN LAKE

KING COUNTY

LATITUDE 47°36'10" LONGITUDE 121°40'45" T25N-R9E-32
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 6.90 SQ MI
 ALTITUDE 2222. FT
 LAKE AREA 310. ACRES
 LAKE VOLUME 16000. ACRE-FT
 MEAN DEPTH 51. FT
 MAXIMUM DEPTH 93. FT
 SHORELINE LENGTH 3.8 MI
 SHORELINE CONFIGURATION 1.5
 DEVELOPMENT OF VOLUME 0.55
 BOTTOM SLOPE 2.2 %
 BASIN GEOLOGY SED./META.
 INFLOW PERENNIAL
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 93 %
 LAKE SURFACE 7 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

 1
 DATE 7/18/73
 TIME 1530 1540
 DEPTH (FT) 3. 79.
 TOTAL NITRATE (N) 0.05 0.05
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.04 0.02
 TOTAL ORGANIC NITROGEN (N) 0.10 0.03
 TOTAL PHOSPHORUS (P) 0.005 0.005
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.001
 SPECIFIC CONDUCTANCE (MICROMHOS) 21 21
 WATER TEMPERATURE (DEG C) 22.1 5.2
 COLOR (PLATINUM-COBALT UNITS) 5 5
 SECCHI-DISC VISIBILITY (FT) 18
 DISSOLVED OXYGEN 8.4 8.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE

7/18/73

TIME

1550

NUMBER OF FECAL COLIFORM SAMPLES

3

FECAL COLIFORM, MINIMUM (COL./100ML)

<1

FECAL COLIFORM, MAXIMUM (COL./100ML)

2

FECAL COLIFORM, MEAN (COL./100ML)

1

REMARKS

 MANY LOGS COVERED THE SHORELINE. THE SURROUNDING HILLS HAVE BEEN LOGGED RECENTLY.



N

0 2000 4000 FEET

EXPLANATION

— 43 —
Line of equal
water depth
Interval 20 feet

Calligan Lake, King County. From U.S. Geological Survey, August 9, 1954.



Calligan Lake, King County. August 20, 1970. Approx. scale 1:12,000.

CAROLINE LAKE

KING COUNTY

LATITUDE 47°29'23" LONGITUDE 121°30' 4" T23N-R10E-11
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.41 SQ MI
 ALTITUDE 4740. FT
 LAKE AREA 55. ACRES
 LAKE VOLUME 7000. ACRE-FT
 MEAN DEPTH 130. FT
 MAXIMUM DEPTH 310. FT
 SHORELINE LENGTH 1.4 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.41
 BOTTOM SLOPE 18. %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 79 %
 LAKE SURFACE 21 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

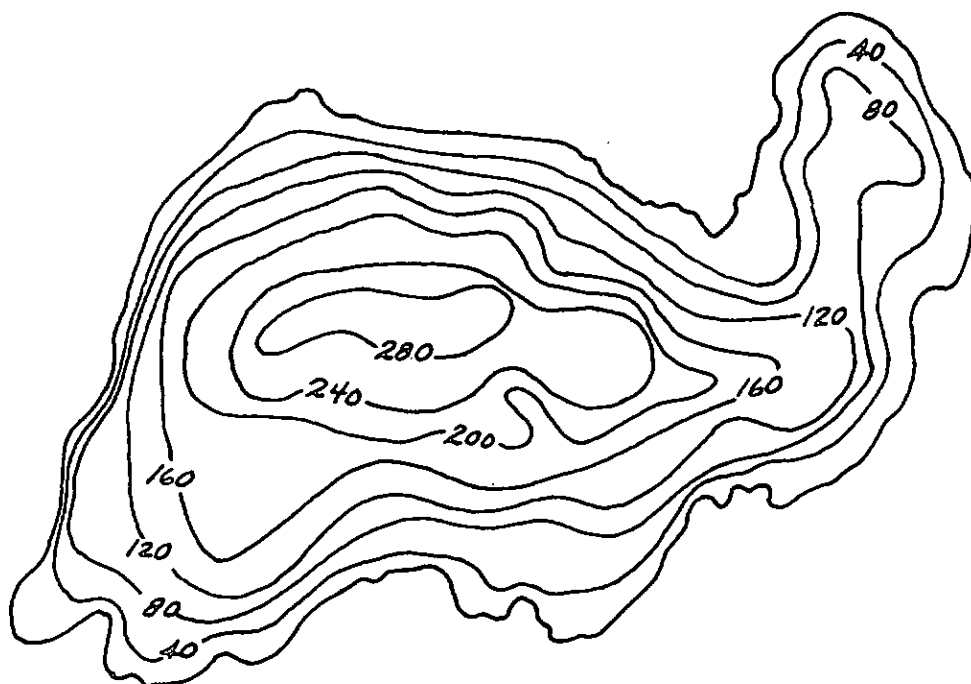
 SAMPLE SITE 1
 DATE 8/29/74
 TIME 1300 1305
 DEPTH (FT) 3. 164.
 TOTAL NITRATE (N) 0.01 0.02
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.02 0.03
 TOTAL ORGANIC NITROGEN (N) 0.03 --
 TOTAL PHOSPHORUS (P) 0.002 0.004
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.003
 SPECIFIC CONDUCTANCE (MICROMHOS) 4 6
 WATER TEMPERATURE (DEG C) 4.9 4.0
 COLOR (PLATINUM-COBALT UNITS) 0 0
 SECCHI-DISC VISIBILITY (FT) 85
 DISSOLVED OXYGEN 10.4 9.0

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/29/74
 TIME 1200
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 THE LAKE HAS EXCEPTIONAL WATER CLARITY AS INDICATED BY A SECCHI DISC
 VISIBILITY DEPTH OF 85 FEET.



N



0 500 1000 FEET

EXPLANATION

— 80 —

Line of equal
water depth
Interval 40 feet

Caroline Lake, King County. From U.S. Geological Survey, September 7, 1974.



Caroline Lake, King County. August 20, 1970. Approx. scale 1:12,000.

COTTAGE LAKE

KING COUNTY

LATITUDE 47°45' 1" LONGITUDE 122° 5'21" T26N-R6E-7
SAMMAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	6.83 SQ MI
ALTITUDE	231. FT
LAKE AREA	63. ACRES
LAKE VOLUME	970. ACRE-FT
MEAN DEPTH	15. FT
MAXIMUM DEPTH	25. FT
SHORELINE LENGTH	1.4 MI
SHORELINE CONFIGURATION	1.2
DEVELOPMENT OF VOLUME	0.61
BOTTOM SLOPE	1.3 %
BASIN GEOLOGY	SED./META.
INFLOW	PERENNIAL
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	92 %
NUMBER OF NEARSHORE HOMES	58
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	1 %
AGRICULTURAL	6 %
FOREST OR UNPRODUCTIVE	90 %
LAKE SURFACE	3 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

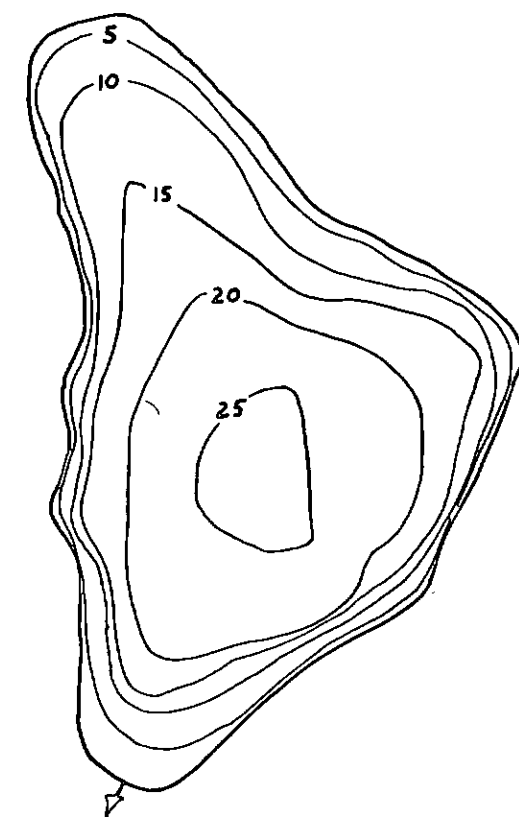
SAMPLE SITE	1
DATE	8/ 7/73
TIME	1225 1230
DEPTH (FT)	3. 18.
TOTAL NITRATE (N)	0.01 0.04
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.11 0.70
TOTAL ORGANIC NITROGEN (N)	0.29 0.50
TOTAL PHOSPHORUS (P)	0.024 0.48
TOTAL ORTHOPHOSPHATE (P)	0.010 0.44
SPECIFIC CONDUCTANCE (MICROMHOS)	88 102
WATER TEMPERATURE (DEG C)	20.8 10.6
COLOR (PLATINUM-COBALT UNITS)	15 80
SECCHI-DISC VISIBILITY (FT)	9
DISSOLVED OXYGEN	8.2 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	8/ 7/73
TIME	1135
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	12
FECAL COLIFORM, MAXIMUM (COL./100ML)	59
FECAL COLIFORM, MEAN (COL./100ML)	30

REMARKS

THE LAKE RECEIVES HEAVY RECREATIONAL USE DURING THE SUMMER MONTHS. A STRONG HYDROGEN SULFIDE ODOR WAS DETECTED IN THE HYPOLIMNION. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



N



0 500 1000 FEET

EXPLANATION

— 10 —

Line of equal
water depth
Interval 5 feet

Cottage Lake, King County. From U.S. Geological Survey, September 7, 1974.



Cottage Lake, King County. June 1, 1970. Approx. scale 1:12,000.

DEEP LAKE

KING COUNTY

LATITUDE 47°16'13" LONGITUDE 121°56'19" T21N-R7E-32
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 3.92 SQ MI
ALTITUDE 770. FT
LAKE AREA 37. ACRES
LAKE VOLUME 1200. ACRE-FT
MEAN DEPTH 33. FT
MAXIMUM DEPTH 74. FT
SHORELINE LENGTH 1.3 MI
SHORELINE CONFIGURATION 1.6
DEVELOPMENT OF VOLUME 0.45
BOTTOM SLOPE 5.2 %
BASIN GEOLOGY SED./META.
INFLOW PERENNIAL
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 5 %
NUMBER OF NEARSHORE HOMES 1
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 1 %
AGRICULTURAL 6 %
FOREST OR UNPRODUCTIVE 91 %
LAKE SURFACE 2 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

1
DATE 7/13/73
TIME 1000 1010
DEPTH (FT) 3. 66.
TOTAL NITRATE (N) 0.13 0.42
TOTAL NITRITE (N) 0.01 0.00
TOTAL AMMONIA (N) 0.05 0.04
TOTAL ORGANIC NITROGEN (N) 0.13 0.10
TOTAL PHOSPHORUS (P) 0.011 0.015
TOTAL ORTHOPHOSPHATE (P) 0.005 0.005
SPECIFIC CONDUCTANCE (MICROMHOS) 62 72
WATER TEMPERATURE (DEG C) 19.9 4.9
COLOR (PLATINUM-COBALT UNITS) 10 25
SECCHI-DISC VISIBILITY (FT) 15
DISSOLVED OXYGEN 9.8 1.2

LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE

7/13/73

TIME

1010

NUMBER OF FECAL COLIFORM SAMPLES

2

FECAL COLIFORM, MINIMUM (COL./100ML)

<1

FECAL COLIFORM, MAXIMUM (COL./100ML)

2

FECAL COLIFORM, MEAN (COL./100ML)

1

REMARKS

VERY FEW AQUATIC PLANTS WERE OBSERVED. THE INFLOW VIA DEEP CREEK DRAINS
A LARGE AGRICULTURAL AREA AND THE SMALL TOWN OF CUMBERLAND. METRO OF
SEATTLE STUDIED THE LAKE IN 1971-72.



Deep Lake, King County. Bathymetric map from
U.S. Geological Survey, July 2, 1973.
Aerial photo, May 17, 1973.

DERRICK LAKE

KING COUNTY

LATITUDE 47°30' 6" LONGITUDE 121°29'34" T23N-R10E-2
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.59 SQ MI
 ALTITUDE 3686. FT
 LAKE AREA 36. ACRES
 LAKE VOLUME 2000. ACRE-FT
 MEAN DEPTH 57. FT
 MAXIMUM DEPTH 140. FT
 SHORELINE LENGTH 1.0 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.40
 BOTTOM SLOPE 10. %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 96 %
 LAKE SURFACE 4 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

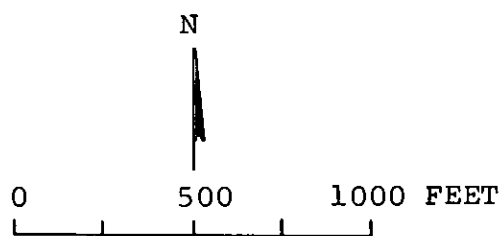
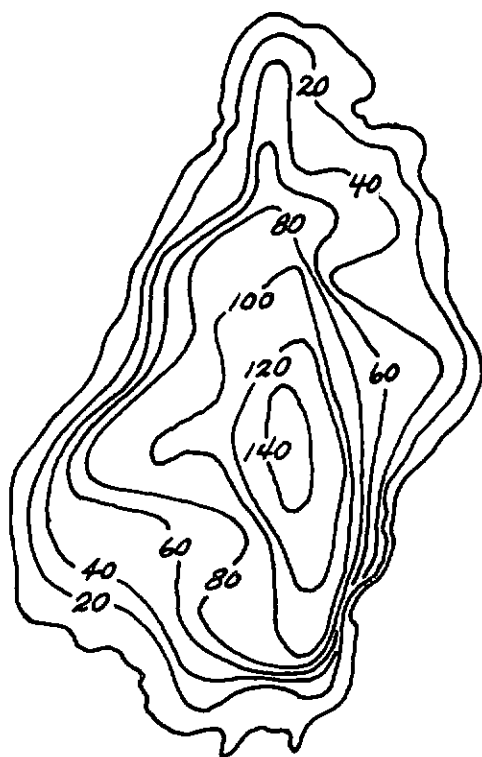
 SAMPLE SITE 1
 DATE 8/29/74
 TIME 1430 1435
 DEPTH (FT) 3. 125.
 TOTAL NITRATE (N) 0.01 0.05
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.04
 TOTAL ORGANIC NITROGEN (N) -- --
 TOTAL PHOSPHORUS (P) 0.002 0.001
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.000
 SPECIFIC CONDUCTANCE (MICROMHOS) 6 6
 WATER TEMPERATURE (DEG C) 14.5 4.0
 COLOR (PLATINUM-COBALT UNITS) 0 0
 SECCHI-DISC VISIBILITY (FT) 41
 DISSOLVED OXYGEN 9.3 6.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/29/74
 TIME 1400
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 3
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 THE LAKE HAS SEVERAL INLETS WHICH FORM A DELTA AT THE SOUTH END OF THE LAKE.

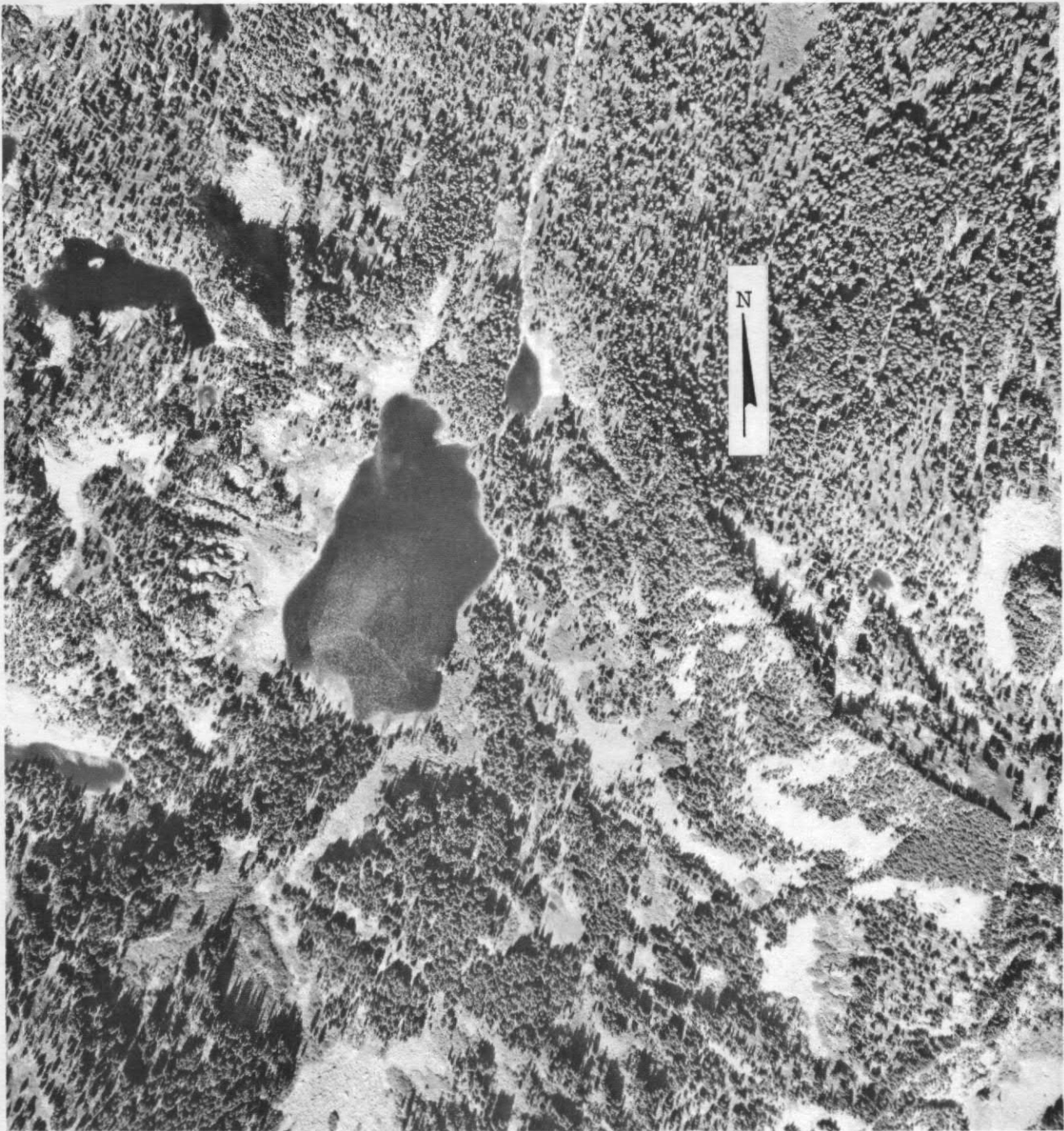


EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Derrick Lake, King County. From U.S. Geological Survey, September 7, 1974.



Derrick Lake, King County. August 21, 1970. Approx. scale 1:12,000.

DESIRE LAKE

KING COUNTY

LATITUDE 47°26'14" LONGITUDE 122° 6' 9" T23N-R5E-36

CEDAR RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	1.37 SQ MI
ALTITUDE	490. FT
LAKE AREA	71. ACRES
LAKE VOLUME	930. ACRE-FT
MEAN DEPTH	13. FT
MAXIMUM DEPTH	21. FT
SHORELINE LENGTH	1.6 MI
SHORELINE CONFIGURATION	1.4
DEVELOPMENT OF VOLUME	0.63
BOTTOM SLOPE	1.1 %
BASIN GEOLOGY	SED./META.
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	91 %
NUMBER OF NEARSHORE HOMES	60
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	10 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	82 %
LAKE SURFACE	8 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

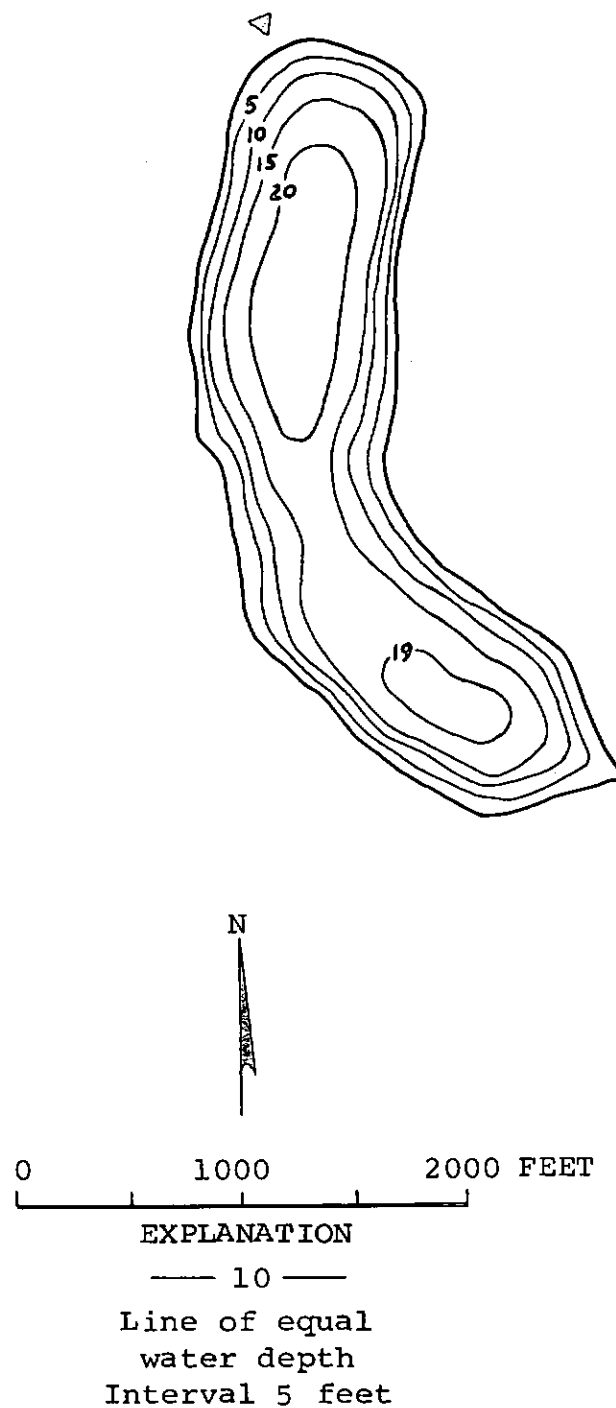
SAMPLE SITE	1
DATE	9/ 6/74
TIME	1235 1240
DEPTH (FT)	3. 13.
TOTAL NITRATE (N)	0.01 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.06 0.36
TOTAL ORGANIC NITROGEN (N)	0.52 0.52
TOTAL PHOSPHORUS (P)	0.017 0.066
TOTAL ORTHOPHOSPHATE (P)	0.007 0.033
SPECIFIC CONDUCTANCE (MICROMHOS)	61 71
WATER TEMPERATURE (DEG C)	20.7 15.3
COLOR (PLATINUM-COBALT UNITS)	35 75
SECCHI-DISC VISIBILITY (FT)	5
DISSOLVED OXYGEN	8.9 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	7/ 5/73
TIME	1315
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	15
FECAL COLIFORM, MAXIMUM (COL./100ML)	28
FECAL COLIFORM, MEAN (COL./100ML)	22

REMARKS

THE LITTORAL BOTTOM IS MOSTLY MUCK. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Desire Lake, King County. From Washington Department of Game, October 8, 1951.



Desire Lake, King County. April 30, 1973. Approx. scale 1:6300.

DOLLOFF LAKE

KING COUNTY

LATITUDE 47°19'25" LONGITUDE 122°17' 5" T21N-R4E-10
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.81 SQ MI
ALTITUDE 405. FT
LAKE AREA 20. ACRES
LAKE VOLUME 200. ACRE-FT
MEAN DEPTH 10. FT
MAXIMUM DEPTH 19. FT
SHORELINE LENGTH 1.1 MI
SHORELINE CONFIGURATION 1.7
DEVELOPMENT OF VOLUME 0.51
BOTTOM SLOPE 1.8 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 68 %
NUMBER OF NEARSHORE HOMES 42
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 3 %
RESIDENTIAL SUBURBAN 10 %
AGRICULTURAL 18 %
FOREST OR UNPRODUCTIVE 65 %
LAKE SURFACE 4 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

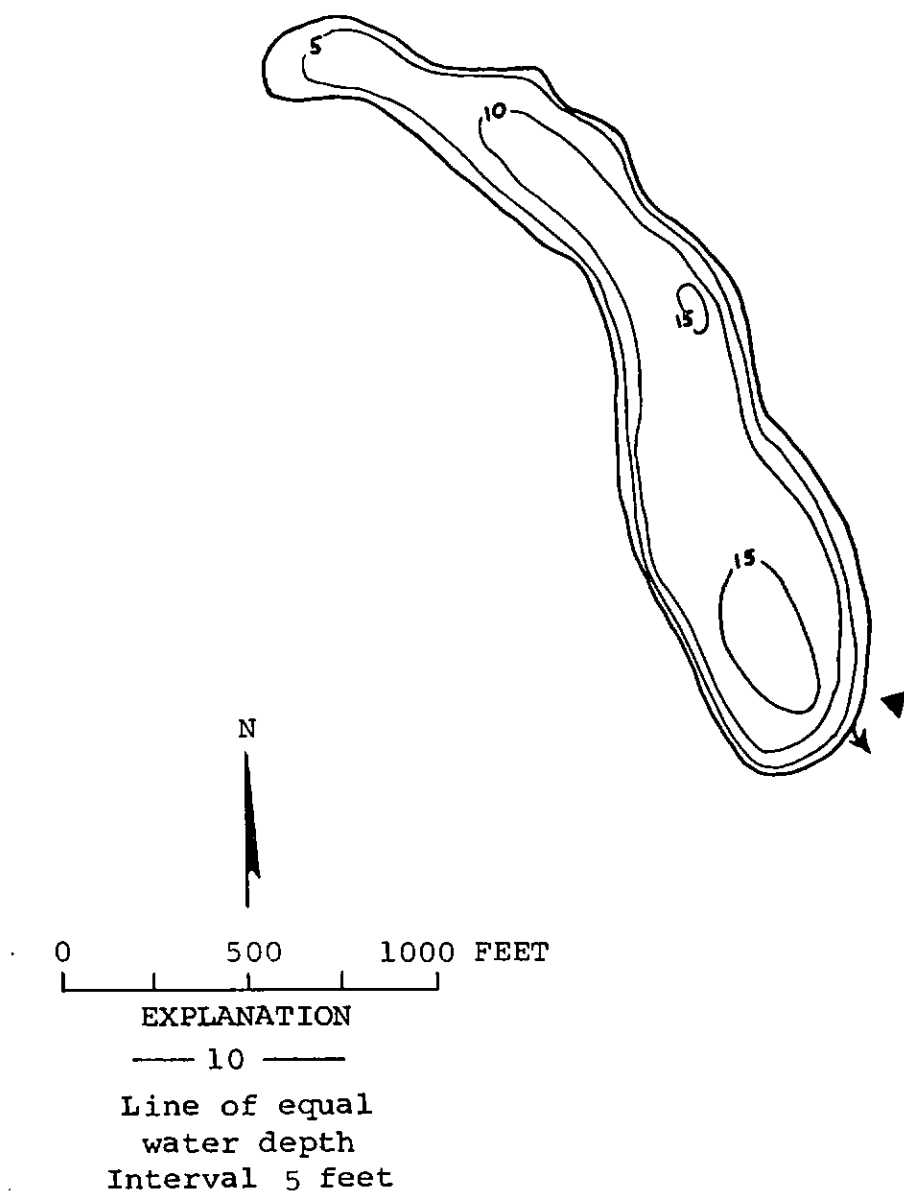
DATE 7/19/73
TIME 1415 1425
DEPTH (FT) 3. 12.
TOTAL NITRATE (N) 0.00 0.00
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.14 0.26
TOTAL ORGANIC NITROGEN (N) 0.69 0.40
TOTAL PHOSPHORUS (P) 0.030 0.10
TOTAL ORTHOPHOSPHATE (P) 0.013 0.041
SPECIFIC CONDUCTANCE (MICROMHOS) 78 86
WATER TEMPERATURE (DEG C) 24.8 13.1
COLOR (PLATINUM-COBALT UNITS) 80 95
SECCHI-DISC VISIBILITY (FT) 3
DISSOLVED OXYGEN 9.9 1.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

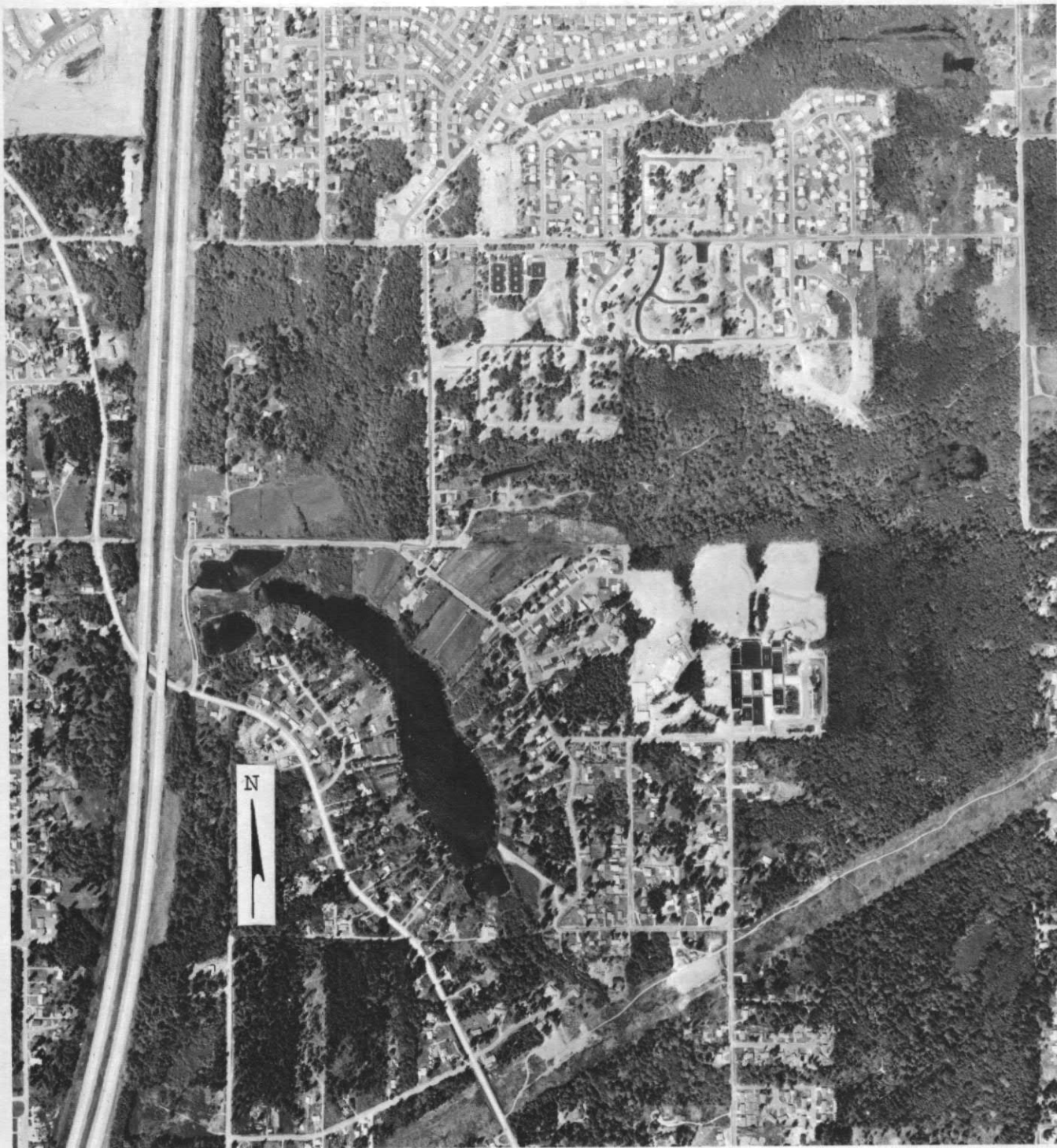
DATE 7/19/73
TIME 1420
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 30
FECAL COLIFORM, MAXIMUM (COL./100ML) 32
FECAL COLIFORM, MEAN (COL./100ML) 31

REMARKS

EMERSED PLANTS COVERED MOST OF THE SHORELINE. THE WATER IS A BROWN TEA COLOR. PEAT IS REMOVED COMMERCIALY NEAR THE NORTHWEST SHORE. THE LITTORAL BOTTOM IS A VERY SOFT MUCK. AN ALGAL BLOOM WAS OBSERVED. HYDROGEN SULFIDE WAS DETECTED IN THE BOTTOM WATER. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Dolloff Lake, King County. From Washington Department of Game, February 25, 1953.



Dolloff Lake, King County. May 18, 1970. Approx. scale 1:12,000.

EAGLE LAKE

KING COUNTY

LATITUDE 47°18' 9" LONGITUDE 121°43'46" T21N-R8E-13
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

DRAINAGE AREA 0.91 SQ MI
ALTITUDE 2200. FT
LAKE AREA 52. ACRES
LAKE VOLUME 3800. ACRE-FT
MEAN DEPTH 73. FT
MAXIMUM DEPTH 130. FT
SHORELINE LENGTH 1.3 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.56
BOTTOM SLOPE 7.6 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 91 %
LAKE SURFACE 9 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/13/73
TIME 830 840
DEPTH (FT) 3. 105.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.03 0.03
TOTAL ORGANIC NITROGEN (N) 0.09 0.05
TOTAL PHOSPHORUS (P) 0.014 0.033
TOTAL ORTHOPHOSPHATE (P) 0.014 0.020
SPECIFIC CONDUCTANCE (MICROMHOS) 24 25
WATER TEMPERATURE (DEG C) 18.0 4.1
COLOR (PLATINUM-COBALT UNITS) 10 15
SECCHI-DISC VISIRILITY (FT) 15
DISSOLVED OXYGEN 8.9 6.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/13/73
TIME 840
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

LOGS COVER MOST OF THE SHORELINE.



0 500 1000 FEET

EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Eagle Lake, King County. Bathymetric map from
U.S. Geological Survey, September 3, 1973.
Aerial photo, August 3, 1973.

ECHO (23N-7E-2) LAKE

KING COUNTY

LATITUDE 47°30'24" LONGITUDE 121°52'13" T23N-R7E-2
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

----- ----
 DRAINAGE AREA 0.41 SQ MI
 ALTITUDE 910. FT
 LAKE AREA 23. ACRES
 LAKE VOLUME 480. ACRE-FT
 MEAN DEPTH 21. FT
 MAXIMUM DEPTH 44. FT
 SHORELINE LENGTH 0.98 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.47
 BOTTOM SLOPE 3.9 %
 BASIN GEOLOGY IGNEOUS
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

----- ----
 RESIDENTIAL DEVELOPMENT 39 %
 NUMBER OF NEARSHORE HOMES 8
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 2 %
 RESIDENTIAL SUBURBAN 1 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 88 %
 LAKE SURFACE 9 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

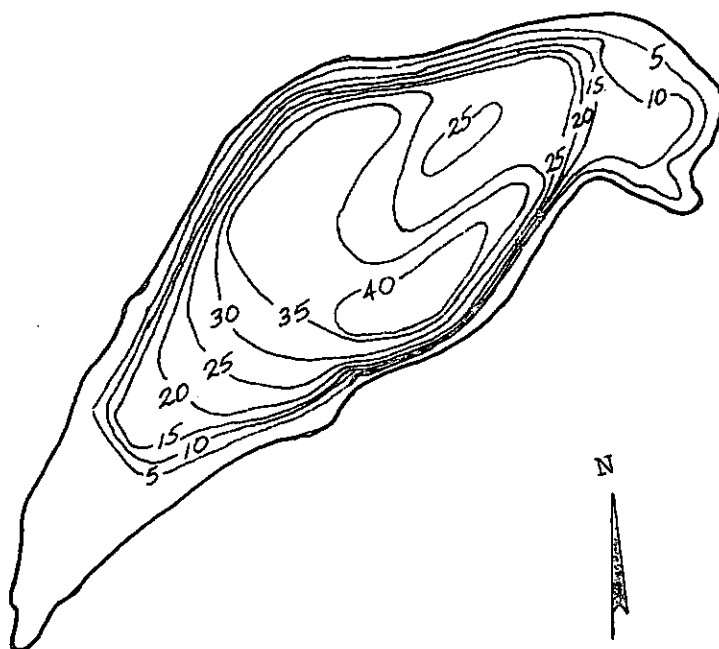
----- ----
 SAMPLE SITE 1
 DATE 8/ 8/73
 TIME 1520 1525
 DEPTH (FT) 3. 23.
 TOTAL NITRATE (N) 0.01 0.01
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.07 0.08
 TOTAL ORGANIC NITROGEN (N) 0.19 0.11
 TOTAL PHOSPHORUS (P) 0.013 0.015
 TOTAL ORTHOPHOSPHATE (P) 0.005 0.006
 SPECIFIC CONDUCTANCE (MICROMHOS) 63 63
 WATER TEMPERATURE (DEG C) 21.0 11.8
 COLOR (PLATINUM-COBALT UNITS) 5 10
 SECCHI-DISC VISIBILITY (FT) 11
 DISSOLVED OXYGEN 8.6 7.5

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 8/73
 TIME 1525
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) 1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 1
 FECAL COLIFORM, MEAN (COL./100ML) 1

REMARKS

 A HIGH ALGAL CELL DENSITY OR MILD ALGAL BLOOM WAS OBSERVED. INTERSTATE 90 PARALLELS THE NORTH SHORE OF THE LAKE. LOGS COVER THE SHORELINE LOCALLY.



0 500 1000 FEET

EXPLANATION

— 10 —

Line of equal
water depth
Interval 5 feet

Echo (23N-7E-2) Lake, King County. From
U.S. Geological Survey, July 11, 1973.



Echo (23N-7E-2) Lake, King County. May 19, 1973. Approx. scale 1:5300.

LATITUDE 47°46'23" LONGITUDE 122°20'25" T26N-R4E-6
LAKE WASHINGTON BASIN

PHYSICAL DATA

DRAINAGE AREA 0.45 SQ MI
ALTITUDE 393. FT
LAKE AREA 13. ACRES
LAKE VOLUME 220. ACRE-FT
MEAN DEPTH 14. FT
MAXIMUM DEPTH 30. FT
SHORELINE LENGTH 0.64 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.46
BOTTOM SLOPE 3.6 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 100 %
NUMBER OF NEARSHORE HOMES 30
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 96 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 0 %
LAKE SURFACE 4 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

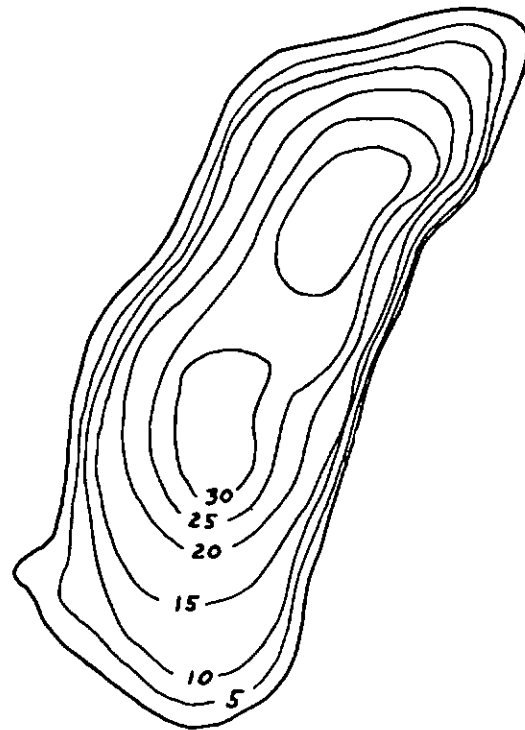
SAMPLE SITE 1
DATE 6/23/72
TIME 915 925
DEPTH (FT) 3. 28.
DISSOLVED NITRATE (N) 0.00 0.04
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.07 0.57
TOTAL ORGANIC NITROGEN (N) 0.34 0.42
TOTAL PHOSPHORUS (P) 0.030 0.050
DISSOLVED ORTHOPHOSPHATE (P) 0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS) 70 95
WATER TEMPERATURE (DEG C) 18.5 8.5
COLOR (PLATINUM-COBALT UNITS) 15 35
SECCHI-DISC VISIBILITY (FT) 11
DISSOLVED OXYGEN 8.8 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 6/23/72
TIME 1000
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 26
FECAL COLIFORM, MAXIMUM (COL./100ML) 640
FECAL COLIFORM, MEAN (COL./100ML) 303

REMARKS

THE HIGH FECAL COLIFORM COUNTS OBSERVED MAY BE ATTRIBUTED TO THE WATER-
FOWL POPULATION ON THE LAKE. IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED
THE LAKE FOUR TIMES. THE PLANT SURVEY WAS CONDUCTED ON OCTOBER 10, 1972.



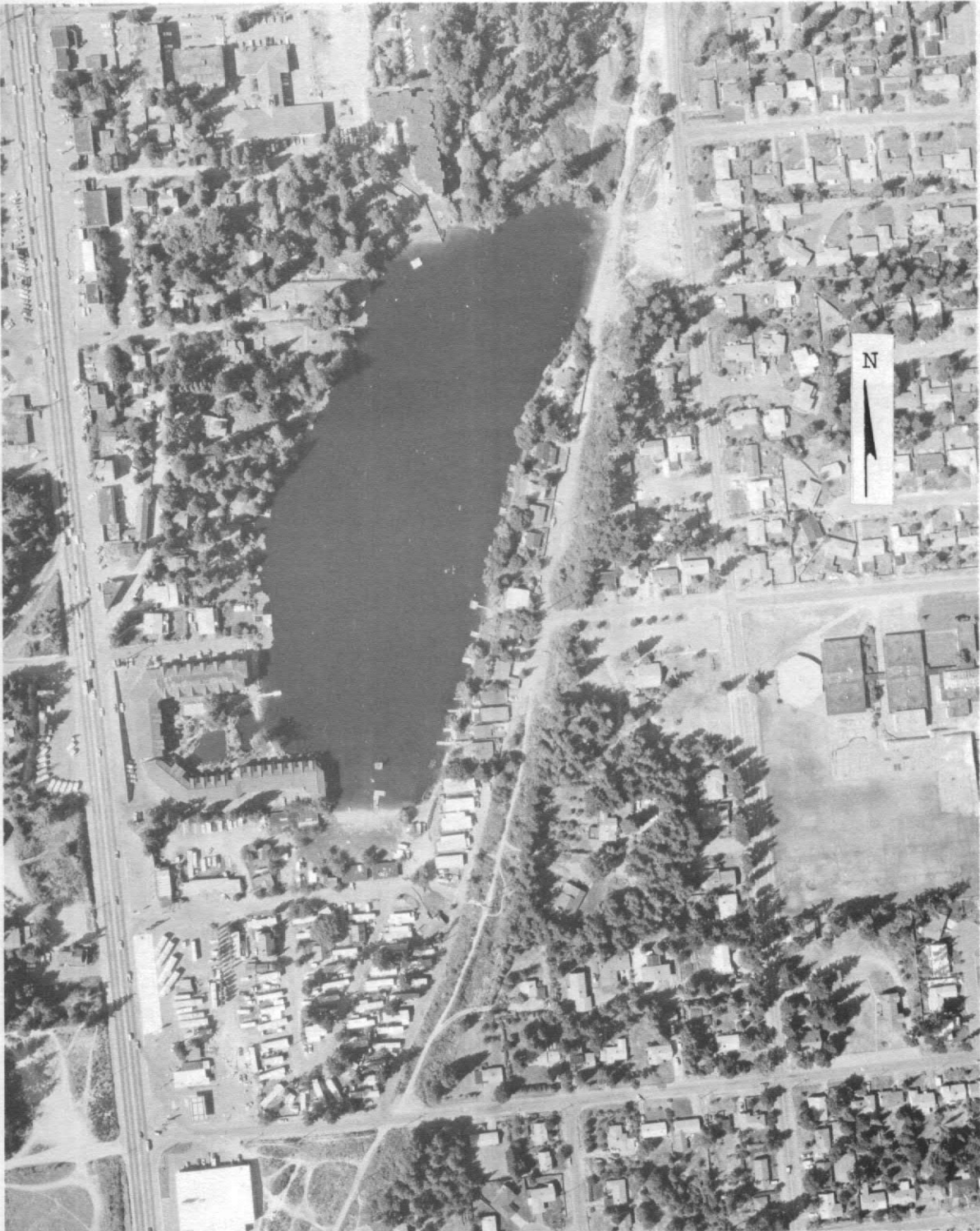
N



EXPLANATION

—10—
Line of equal
water depth
Interval 5 feet

Echo (26N-4E-6) Lake, King County. From Washington
Department of Game, June 6, 1946.



Echo (26N-4E-6) Lake, King County. August 9, 1972. Approx. scale 1:4100.

FENWICK LAKE

KING COUNTY

LATITUDE 47°21'44" LONGITUDE 122°16' 7" T22N-R4E-26
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.88 SQ MI
ALTITUDE 115. FT
LAKE AREA 24. ACRES
LAKE VOLUME 300. ACRE-FT
MEAN DEPTH 13. FT
MAXIMUM DEPTH 31. FT
SHORELINE LENGTH 1.2 MI
SHORELINE CONFIGURATION 1.8
DEVELOPMENT OF VOLUME 0.40
BOTTOM SLOPE 2.7 %
BASIN GEOLOGY SED./META.
INFLOW NOT DETERMINED
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 12 %
NUMBER OF NEARSHORE HOMES 8
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 27 %
RESIDENTIAL SUBURBAN 9 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 60 %
LAKE SURFACE 4 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

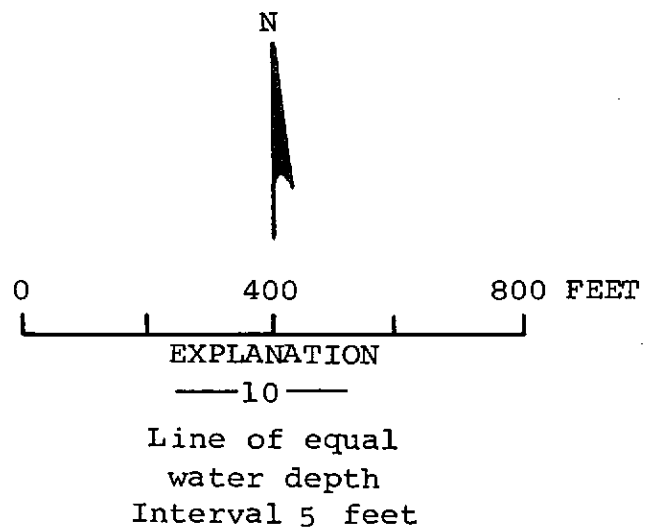
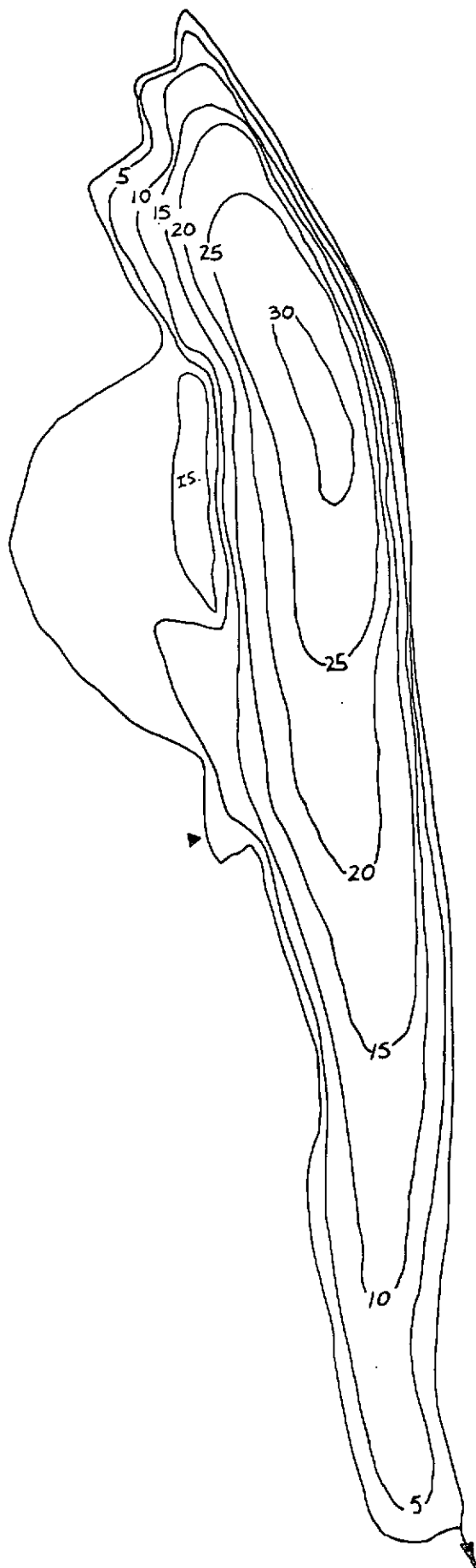
SAMPLE SITE 1
DATE 7/20/73
TIME 1330 1335
DEPTH (FT) 3. 22.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.05 0.10
TOTAL ORGANIC NITROGEN (N) 0.27 0.48
TOTAL PHOSPHORUS (P) 0.013 0.20
TOTAL ORTHOPHOSPHATE (P) 0.002 0.013
SPECIFIC CONDUCTANCE (MICROMHOS) 95 96
WATER TEMPERATURE (DEG C) 22.5 8.5
COLOR (PLATINUM-COBALT UNITS) 0 30
SECCHI-DISC VISIBILITY (FT) 14
DISSOLVED OXYGEN 8.4 0.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

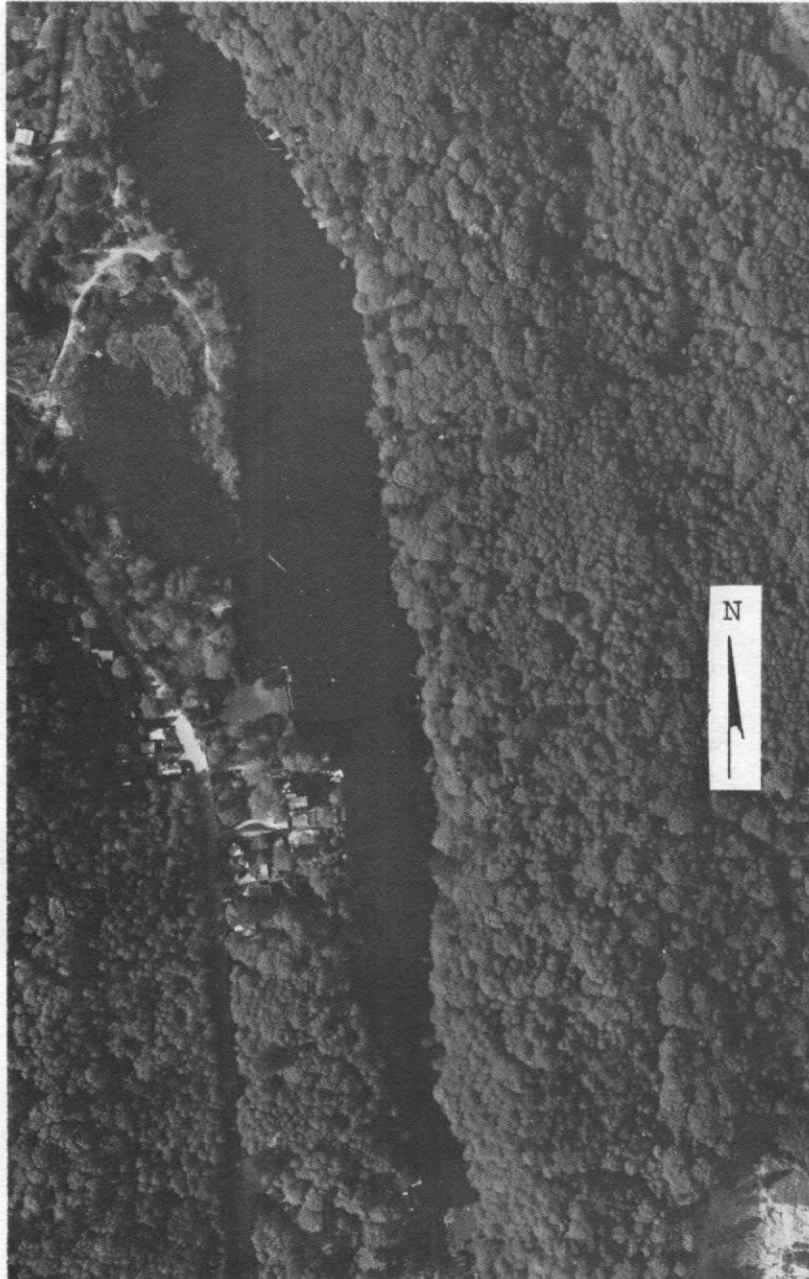
DATE 7/20/73
TIME 1340
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) 17
FECAL COLIFORM, MEAN (COL./100ML) 9

REMARKS

MOST OF THE ROOTED AQUATIC PLANTS WERE AT THE SOUTHERN TIP OF THE LAKE.



Fenwick Lake, King County. From Washington Department of Game, August 6, 1947.



Fenwick Lake, King County. April 30, 1973. Approx. scale 1:4800.

FINDLEY LAKE

KING COUNTY

LATITUDE 47°19'15" LONGITUDE 121°35' 9" T21N-R10E-7
CEDAR RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.39 SQ MI
ALTITUDE 3701. FT
LAKE AREA 26. ACRES
LAKE VOLUME 680. ACRE-FT
MEAN DEPTH 26. FT
MAXIMUM DEPTH 92. FT
SHORELINE LENGTH 0.83 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.28
BOTTOM SLOPE 7.7 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 90 %
LAKE SURFACE 10 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

DATE 8/ 8/73
TIME 1240 1245
DEPTH (FT) 3. 59.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.01 0.06
TOTAL ORGANIC NITROGEN (N) 0.06 0.04
TOTAL PHOSPHORUS (P) 0.001 0.002
TOTAL ORTHOPHOSPHATE (P) 0.001 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 21 29
WATER TEMPERATURE (DEG C) 17.4 5.1
COLOR (PLATINUM-COBALT UNITS) 5 5
SECCHI-DISC VISIBILITY (FT) 52
DISSOLVED OXYGEN 8.8 7.6

LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE

TIME

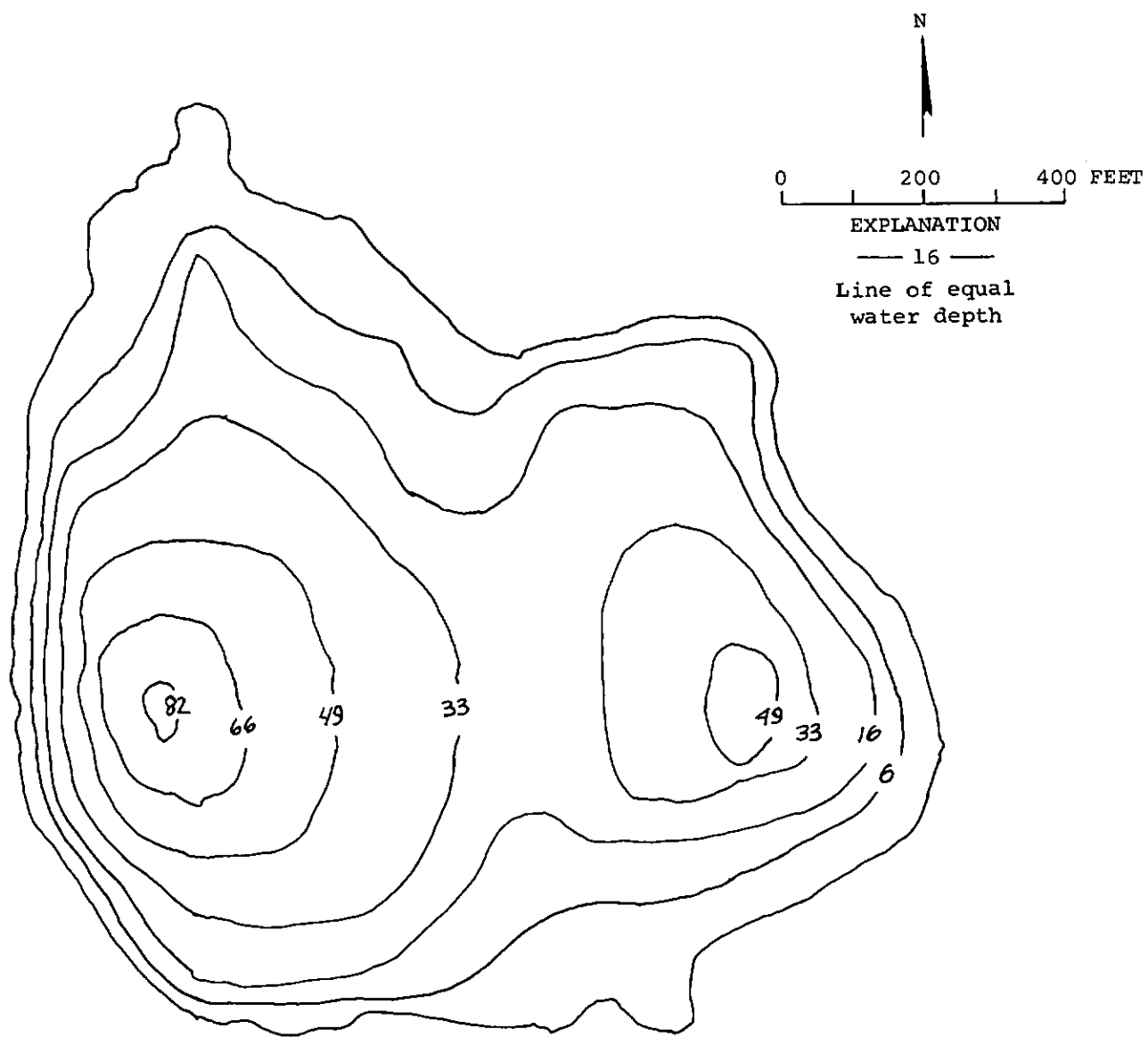
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

8/ 8/73

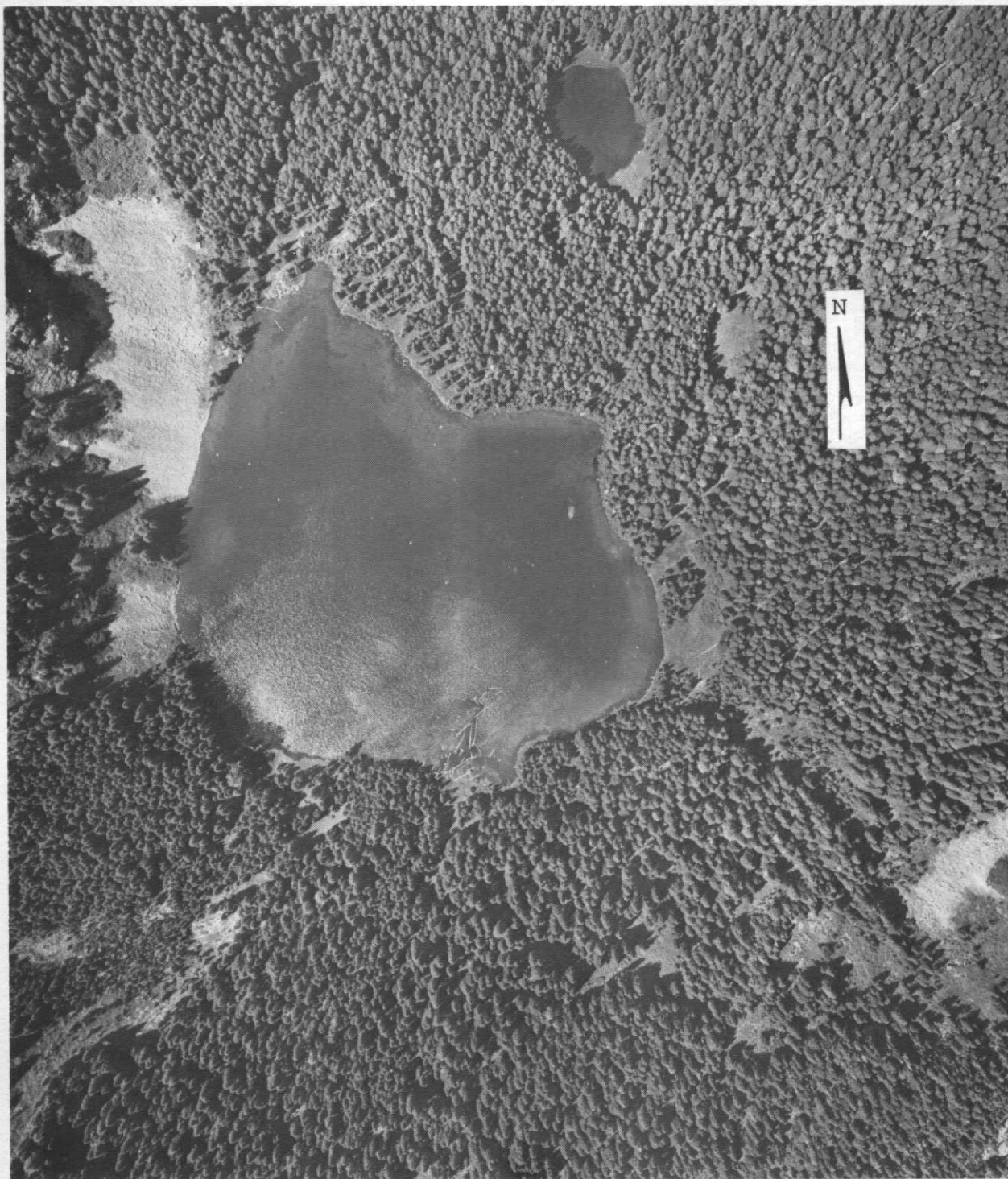
1315

REMARKS

VERY FEW MACROPHYTES WERE OBSERVED. RESEARCHERS AT THE UNIVERSITY OF WASHINGTON HAVE STUDIED THE LAKE EXTENSIVELY.



Findley Lake, King County. From University of Washington, April 19, 1972.



Findley Lake, King County. July 14, 1973. Approx. scale 1:4800.

FISH LAKE

KING COUNTY

LATITUDE 47°16' 7" LONGITUDE 121°57'17" T21N-R7E-31
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 14.2 SQ MI
ALTITUDE 710. FT
LAKE AREA 18. ACRES
LAKE VOLUME 240. ACRE-FT
MEAN DEPTH 13. FT
MAXIMUM DEPTH 24. FT
SHORELINE LENGTH 0.99 MI
SHORELINE CONFIGURATION 1.7
DEVELOPMENT OF VOLUME 0.55
BOTTOM SLOPE 2.4 %
BASIN GEOLOGY SED./META.
INFLOW PERENNIAL
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 5 %
NUMBER OF NEARSHORE HOMES 1
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 5 %
FOREST OR UNPRODUCTIVE 95 %
LAKE SURFACE <1 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/10/73
TIME 1500 1510
DEPTH (FT) 3. 15.
TOTAL NITRATE (N) 0.14 0.04
TOTAL NITRITE (N) 0.01 0.00
TOTAL AMMONIA (N) 0.06 0.21
TOTAL ORGANIC NITROGEN (N) 0.14 0.47
TOTAL PHOSPHORUS (P) 0.017 0.064
TOTAL ORTHOPHOSPHATE (P) 0.014 0.010
SPECIFIC CONDUCTANCE (MICROMHOS) 52 68
WATER TEMPERATURE (DEG C) 18.8 9.4
COLOR (PLATINUM-COBALT UNITS) 5 15
SECCHI-DISC VISIBILITY (FT) 8
DISSOLVED OXYGEN 11.2 4.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/10/73
TIME 1535
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 9
FECAL COLIFORM, MAXIMUM (COL./100ML) 17
FECAL COLIFORM, MEAN (COL./100ML) 13

REMARKS

THE PERENNIAL INFLOW VIA COAL CREEK DRAINS A LARGE AREA COMPARED TO THE
SIZE OF THE LAKE. THE LITTORAL BOTTOM IS SILT AND MUCK.



EXPLANATION
— 10 —
Line of equal
water depth
Interval 5 feet

Fish Lake, King County. Bathymetric map from
U.S. Geological Survey, July 3, 1973.
Aerial photo, May 17, 1973.

FIVEMILE LAKE

KING COUNTY

LATITUDE 47°16'13" LONGITUDE 122°17' 3" T21N-R4E-34
PUYALLUP RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 1.01 SQ MI
ALTITUDE 395. FT
LAKE AREA 38. ACRES
LAKE VOLUME 700. ACRE-FT
MEAN DEPTH 18. FT
MAXIMUM DEPTH 32. FT
SHORELINE LENGTH 1.2 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.58
BOTTOM SLOPE 2.2 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIRLE
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 76 %
NUMBER OF NEARSHORE HOMES 34
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 6 %
AGRICULTURAL 13 %
FOREST OR UNPRODUCTIVE 75 %
LAKE SURFACE 6 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

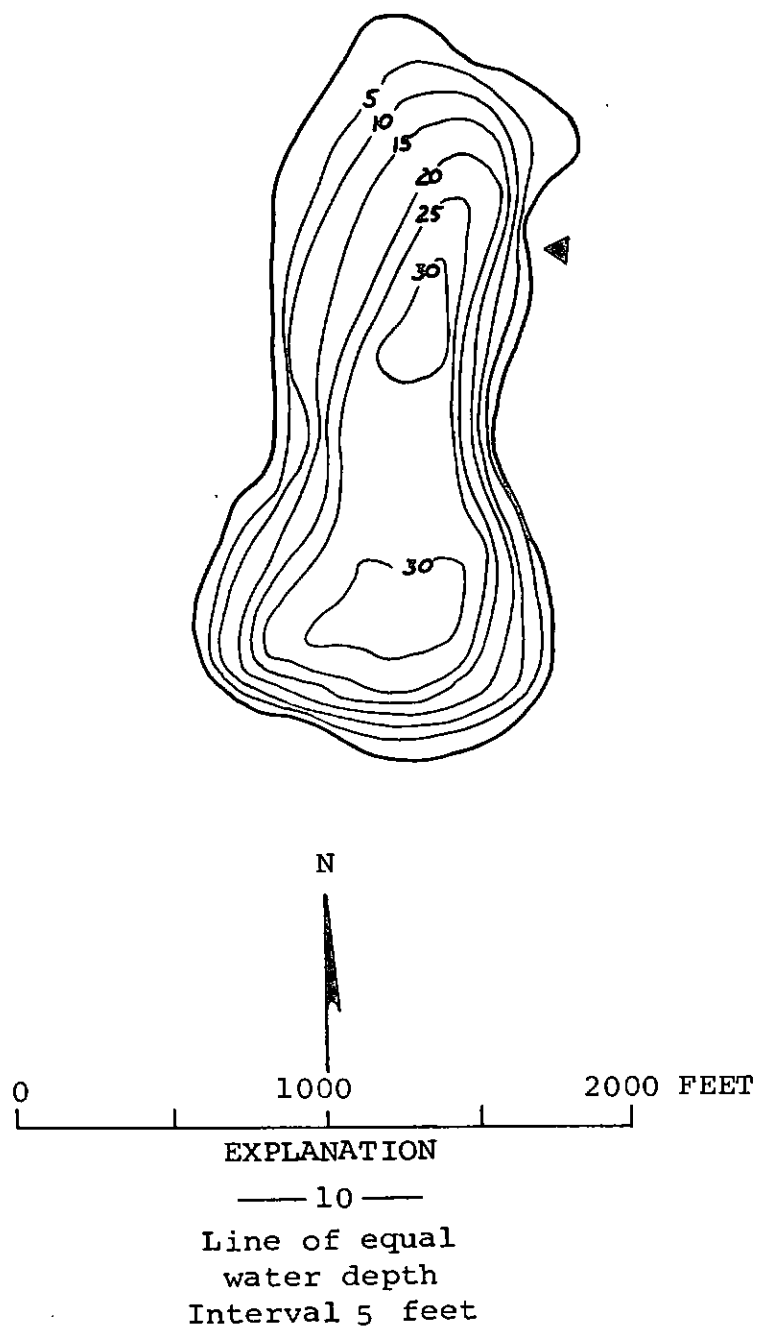
DATE 7/20/73
TIME 1540 1550
DEPTH (FT) 3. 26.
TOTAL NITRATE (N) 0.04 0.53
TOTAL NITRITE (N) 0.00 0.01
TOTAL AMMONIA (N) 0.12 0.15
TOTAL ORGANIC NITROGEN (N) 0.47 0.38
TOTAL PHOSPHORUS (P) 0.013 0.019
TOTAL ORTHOPHOSPHATE (P) 0.007 0.007
SPECIFIC CONDUCTANCE (MICROMHOS) 56 58
WATER TEMPERATURE (DEG C) 23.0 6.0
COLOR (PLATINUM-COBALT UNITS) 70 75
SECCHI-DISC VISIRILITY (FT) 5
DISSOLVED OXYGEN 8.3 1.1

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 7/20/73
TIME 1600
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 9
FECAL COLIFORM, MAXIMUM (COL./100ML) 15
FECAL COLIFORM, MEAN (COL./100ML) 8

REMARKS

MOST OF THE EMERSED PLANTS WERE ON THE NORTH END OF THE LAKE. THE NORTH-EAST PART OF THE DRAINAGE BASIN IS MARSHLAND. A PARK IS LOCATED ON THE LAKE AND THE IN-LAKE RECREATION IS HEAVY DURING THE SUMMER MONTHS.



Fivemile Lake, King County. From Washington Department of Game, June 6, 1946.



Fivemile Lake, King County. May 17, 1973. Approx. scale 1:4800.

FRANCIS LAKE

KING COUNTY

LATITUDE 47°28'26" LONGITUDE 122° 4'30" T23N-R6E-34

CEDAR RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.61 SQ MI
ALTITUDE	463. FT
LAKE AREA	16. ACRES
LAKE VOLUME	66. ACRE-FT
MEAN DEPTH	4. FT
MAXIMUM DEPTH	9. FT
SHORELINE LENGTH	0.63 MI
SHORELINE CONFIGURATION	1.1
DEVELOPMENT OF VOLUME	0.45
BOTTOM SLOPE	0.95 %
BASIN GEOLOGY	SED./META.
INFLOW	PERENNIAL
OUTFLOW CHANNEL	ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	35 %
NUMBER OF NEARSHORE HOMES	9
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	0 %
AGRICULTURAL	15 %
FOREST OR UNPRODUCTIVE	79 %
LAKE SURFACE	6 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

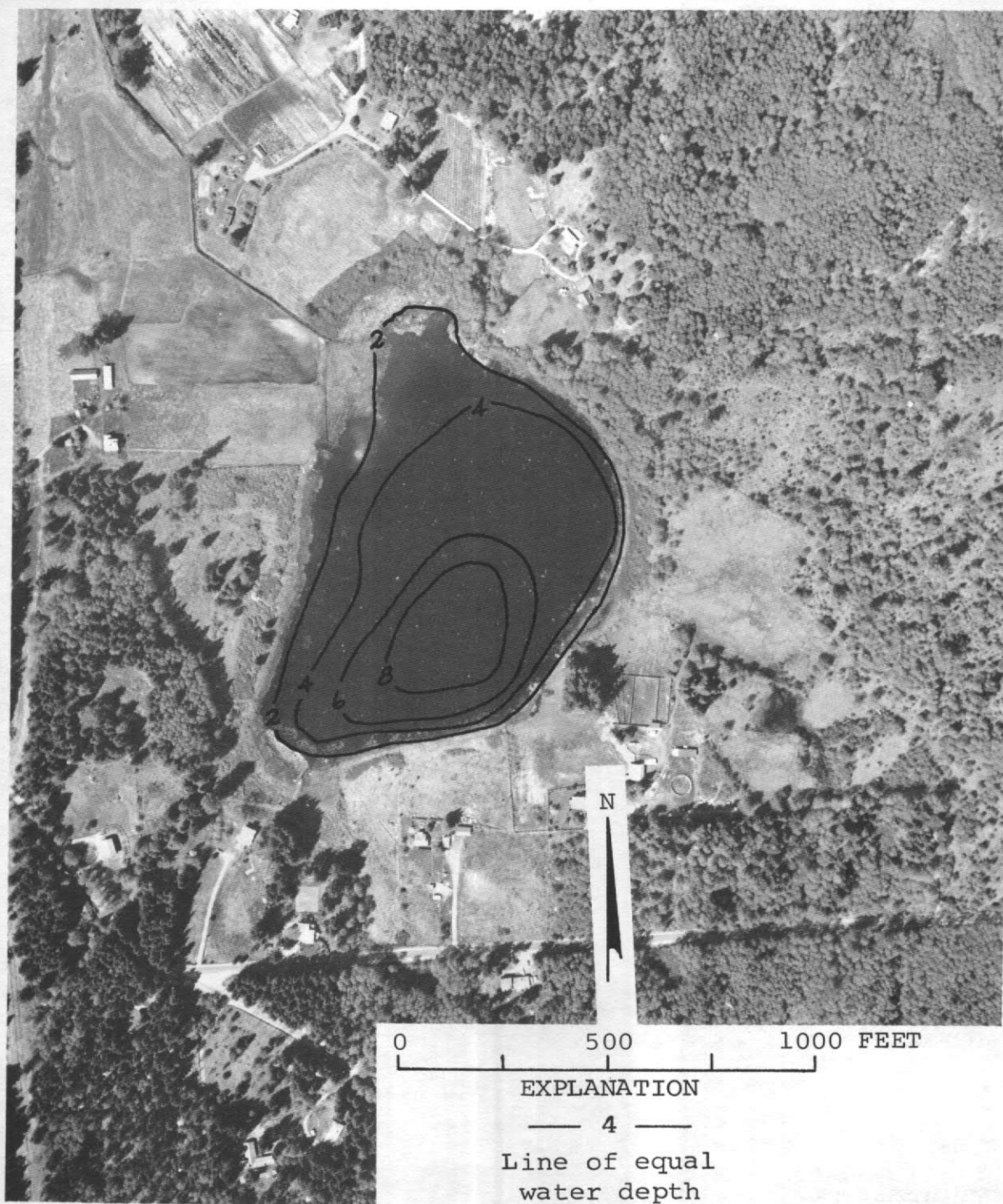
SAMPLE SITE	1
DATE	7/ 9/73
TIME	1130 1135
DEPTH (FT)	3. 6.
TOTAL NITRATE (N)	0.01 0.02
TOTAL NITRITE (N)	0.01 0.00
TOTAL AMMONIA (N)	0.10 0.11
TOTAL ORGANIC NITROGEN (N)	0.42 0.45
TOTAL PHOSPHORUS (P)	0.015 0.020
TOTAL ORTHOPHOSPHATE (P)	0.005 0.006
SPECIFIC CONDUCTANCE (MICROMHOS)	30 30
WATER TEMPERATURE (DEG C)	20.1 18.9
COLOR (PLATINUM-COBALT UNITS)	20 20
SECCHI-DISC VISIRILITY (FT)	7
DISSOLVED OXYGEN	8.5 7.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	26- 50 %

DATE	7/ 9/73
TIME	1135
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LITTORAL BOTTOM IS MUCK.



Francis Lake, King County. Bathymetric map from
U.S. Geological Survey, July 5, 1973.
Aerial photo, April 30, 1973.

GENEVA LAKE

KING COUNTY

LATITUDE 47°17'24" LONGITUDE 122°16'49" T21N-R4E-22
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.35 SQ MI
 ALTITUDE 390. FT
 LAKE AREA 26. ACRES
 LAKE VOLUME 510. ACRE-FT
 MEAN DEPTH 19. FT
 MAXIMUM DEPTH 46. FT
 SHORELINE LENGTH 0.98 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.42
 BOTTOM SLOPE 3.8 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 56 %
 NUMBER OF NEARSHORE HOMES 35
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 42 %
 AGRICULTURAL 18 %
 FOREST OR UNPRODUCTIVE 28 %
 LAKE SURFACE 12 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

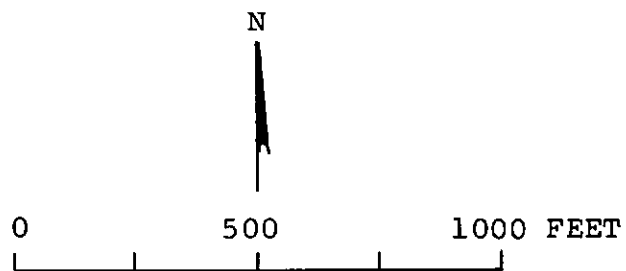
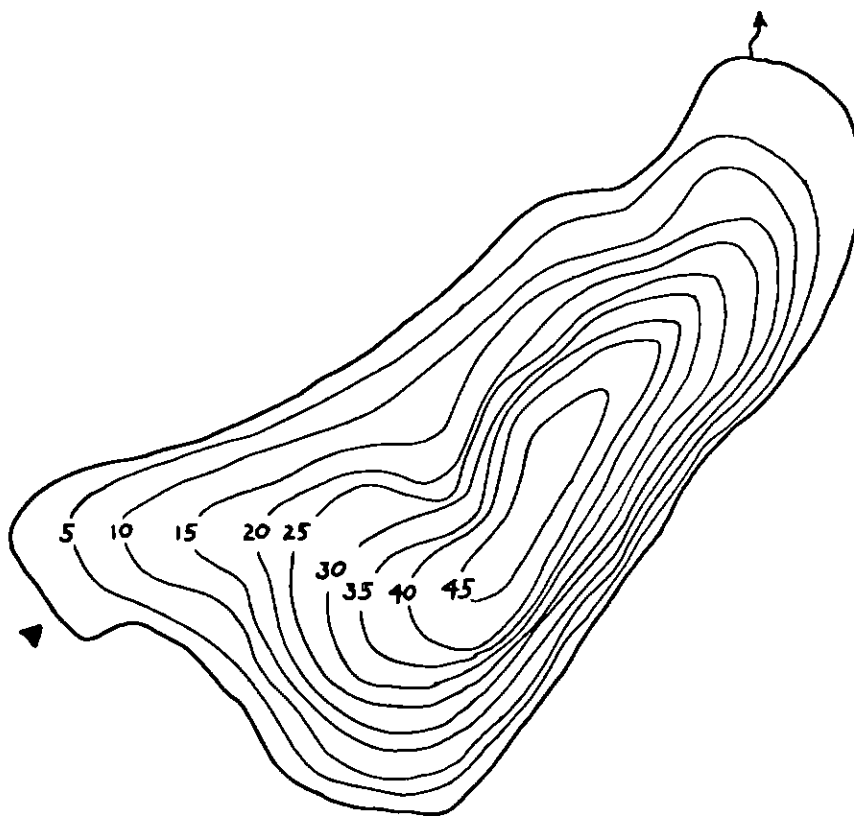
 SAMPLE SITE 1
 DATE 7/20/73
 TIME 1445 1455
 DEPTH (FT) 3. 39.
 TOTAL NITRATE (N) 0.01 0.02
 TOTAL NITRITE (N) 0.01 0.00
 TOTAL AMMONIA (N) 0.11 0.69
 TOTAL ORGANIC NITROGEN (N) 1.5 0.61
 TOTAL PHOSPHORUS (P) 0.027 0.044
 TOTAL ORTHOPHOSPHATE (P) 0.021 0.025
 SPECIFIC CONDUCTANCE (MICROMHOS) 84 89
 WATER TEMPERATURE (DEG C) 22.0 6.0
 COLOR (PLATINUM-COBALT UNITS) 35 25
 SECCHI-DISC VISIBILITY (FT) 3
 DISSOLVED OXYGEN 9.9 0.1

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/20/73
 TIME 1500
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 10
 FECAL COLIFORM, MAXIMUM (COL./100ML) 55
 FECAL COLIFORM, MEAN (COL./100ML) 33

REMARKS

 AN ALGAL BLOOM WAS OBSERVED. THE LITTORAL BOTTOM IS MOSTLY MUCK. NO
 SUBMERSED AQUATIC PLANTS WERE OBSERVED. HYDROGEN SULFIDE WAS DETECTED IN
 THE HYPOLIMNION.



EXPLANATION
 — 10 —
 Line of equal
 water depth
 Interval 5 feet

Geneva Lake, King County. From Washington
 Department of Game, June 4, 1946.



Geneva Lake, King County. April 30, 1973. Approx. scale 1:4800.

GRANITE LAKE

KING COUNTY

LATITUDE 47°27' 8" LONGITUDE 121°36'39" T23N-R9E-26
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.53 SQ MI
 ALTITUDE 3080. FT
 LAKE AREA 10. ACRES
 LAKE VOLUME 93. ACRE-FT
 MEAN DEPTH 9. FT
 MAXIMUM DEPTH 19. FT
 SHORELINE LENGTH 0.54 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.47
 BOTTOM SLOPE 2.5 %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 97 %
 LAKE SURFACE 3 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

 SAMPLE SITE 1
 DATE 8/ 8/73
 TIME 1125 1130
 DEPTH (FT) 3. 16.
 TOTAL NITRATE (N) 0.02 0.07
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.02 0.05
 TOTAL ORGANIC NITROGEN (N) 0.02 0.01
 TOTAL PHOSPHORUS (P) 0.002 0.002
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 15 19
 WATER TEMPERATURE (DEG C) 18.6 16.2
 COLOR (PLATINUM-COBALT UNITS) 5 5
 SECCHI-DISC VISIBILITY (FT) >20
 DISSOLVED OXYGEN 8.0 10.2

LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE 8/ 8/73
 TIME 1130
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 VERY FEW AQUATIC PLANTS WERE OBSERVED. THE HILLSIDE TO THE EAST OF THE
 LAKE HAS BEEN LOGGED RECENTLY.



EXPLANATION
— 10 —
Line of equal
water depth
Interval 5 feet

Granite Lake, King County. Bathymetric map from
U.S. Geological Survey, September 3, 1973.
Aerial photo, July 14, 1973.

HANCOCK LAKE

KING COUNTY

LATITUDE 47°34'21" LONGITUDE 121°41' 5" T24N-R9E-8
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 7.67 SQ MI
 ALTITUDE 2173. FT
 LAKE AREA 250. ACRES
 LAKE VOLUME 6200. ACRE-FT
 MEAN DEPTH 25. FT
 MAXIMUM DEPTH 36. FT
 SHORELINE LENGTH 2.7 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.70
 BOTTOM SLOPE 3.3 %
 BASIN GEOLOGY IGNEOUS
 INFLOW PERENNIAL
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 15 %
 NUMBER OF NEARSHORE HOMES 23
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN <1 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 94 %
 LAKE SURFACE 6 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

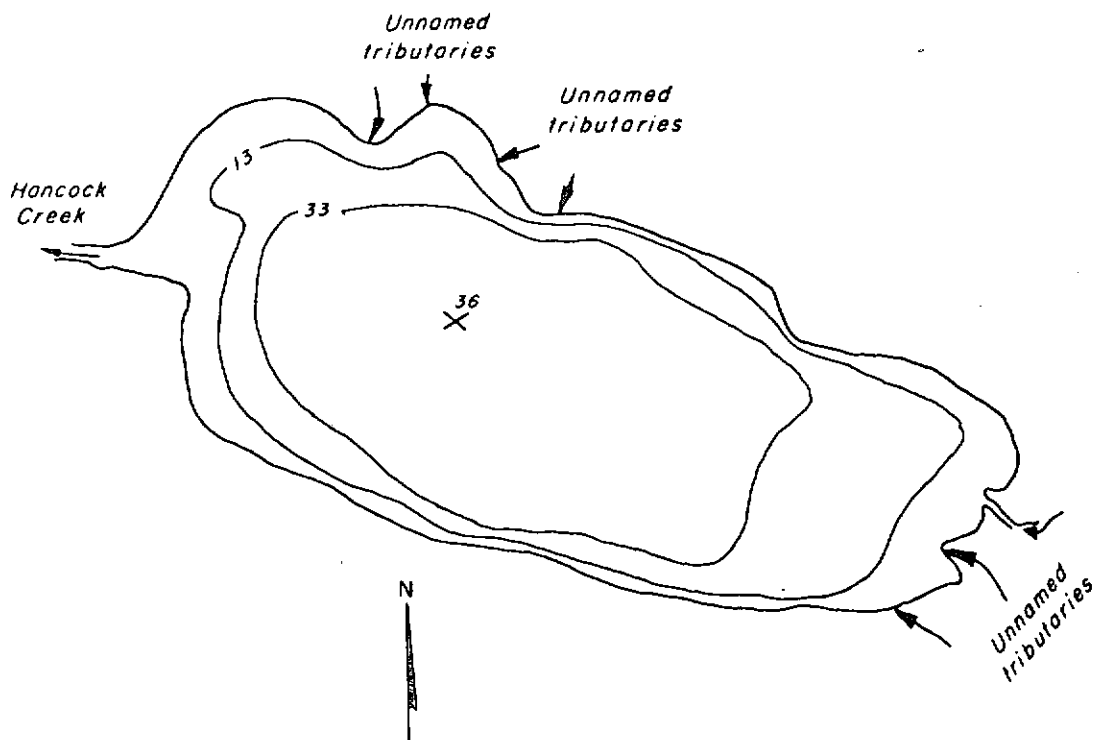
 SAMPLE SITE 1
 DATE 7/13/71
 TIME 1135 1140
 DEPTH (FT) 3. 30.
 DISSOLVED NITRATE (N) 0.05 0.07
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.00 0.04
 TOTAL ORGANIC NITROGEN (N) 0.00 0.02
 TOTAL PHOSPHORUS (P) 0.000 0.010
 DISSOLVED ORTHOPHOSPHATE (P) 0.000 0.010
 SPECIFIC CONDUCTANCE (MICROMHOS) 14 13
 WATER TEMPERATURE (DEG C) 12.0 6.0
 COLOR (PLATINUM-COBALT UNITS) -- --
 SECCHI-DISC VISIBILITY (FT) 18
 DISSOLVED OXYGEN 10.4 9.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/13/71
 TIME 1530
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 3
 FECAL COLIFORM, MEAN (COL./100ML) 1

REMARKS

 THE LAKE IS FED BY SEVERAL TRIBUTARIES. THE HILLS ON THE SOUTH SIDE OF THE LAKE HAVE BEEN LOGGED RECENTLY. LOGS AND WOOD DEBRIS COVER MOST OF THE SHORELINE. IN 1971 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS CONDUCTED ON SEPTEMBER 30, 1971.



EXPLANATION

—33—

Line of equal
water depth
Interval 20 feet

Hancock Lake, King County. From Washington Department of Game, October 7, 1953.



Hancock Lake, King County. Jul 14, 1970. Approx. scale 1:9600.

JONES LAKE

KING COUNTY

LATITUDE 47°18'13" LONGITUDE 122° 0'12" T21N-R6E-14
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 1.16 SQ MI
ALTITUDE 530. FT
LAKE AREA 17. ACRES
LAKE VOLUME 71. ACRE-FT
MEAN DEPTH 4. FT
MAXIMUM DEPTH 7. FT
SHORELINE LENGTH 0.62 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.59
BOTTOM SLOPE 0.72 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 15 %
NUMBER OF NEARSHORE HOMES 2
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 1 %
AGRICULTURAL 20 %
FOREST OR UNPRODUCTIVE 77 %
LAKE SURFACE 2 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

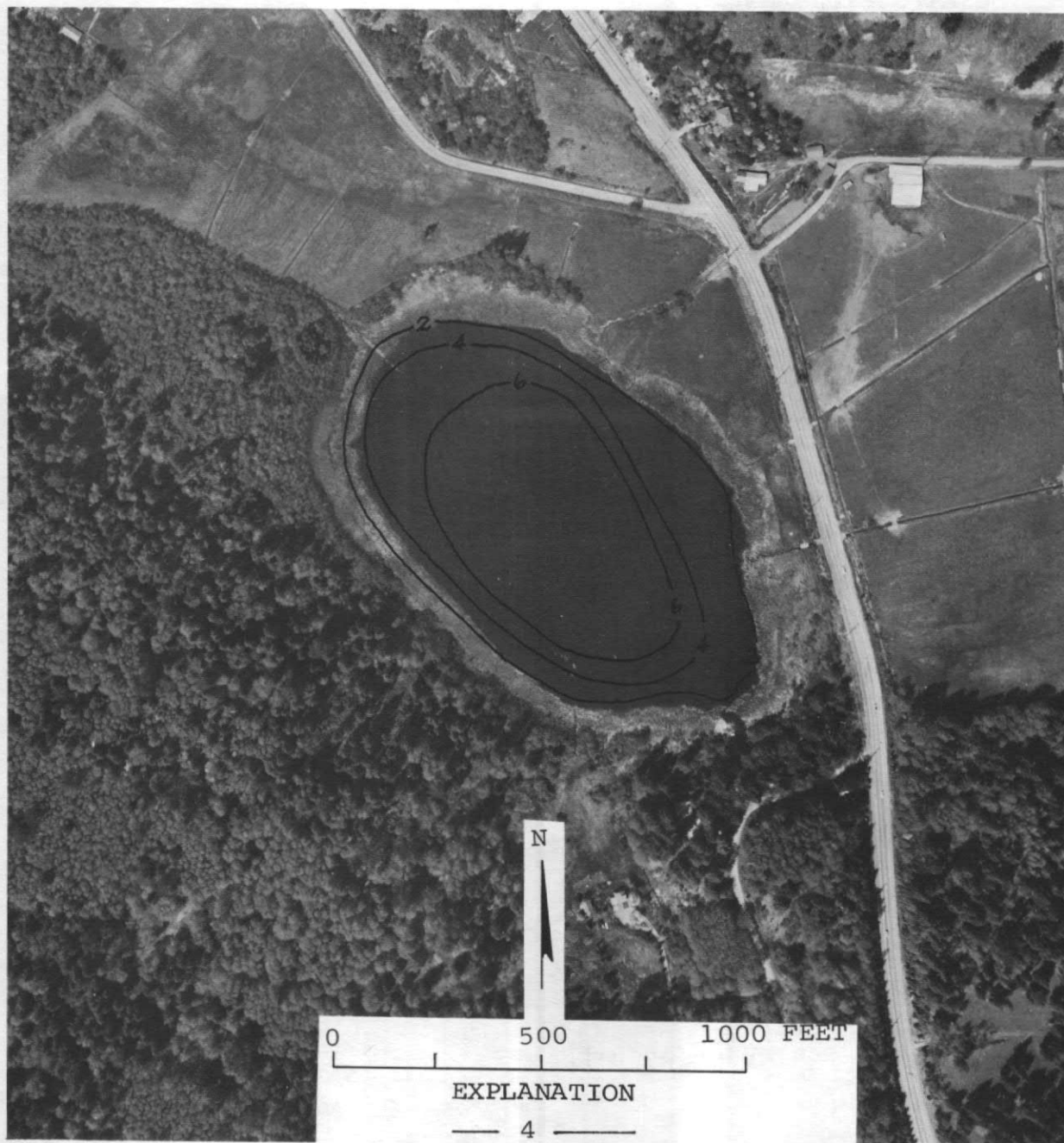
DATE 7/ 9/73
TIME 1430 1435
DEPTH (FT) 3. 4.
TOTAL NITRATE (N) 0.03 --
TOTAL NITRITE (N) 0.01 --
TOTAL AMMONIA (N) 0.11 --
TOTAL ORGANIC NITROGEN (N) 0.42 --
TOTAL PHOSPHORUS (P) 0.029 --
TOTAL ORTHOPHOSPHATE (P) 0.009 --
SPECIFIC CONDUCTANCE (MICROMHOS) 117 --
WATER TEMPERATURE (DEG C) 22.5 22.5
COLOR (PLATINUM-COBALT UNITS) 45 --
SECCHI-DISC VISIBILITY (FT) 6
DISSOLVED OXYGEN 9.2 9.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/ 9/73
TIME 1445
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) 62
FECAL COLIFORM, MEAN (COL./100ML) 31

REMARKS

THE LAKE HAS A MARSH-LIKE SHORELINE COMPLETELY COVERED BY EMERSED AQUATIC PLANTS. THE BOTTOM OF THE LAKE IS COMPLETELY COVERED BY SUBMERSED PLANTS (ELODEA AND PONDWEED). METRO OF SEATTLE STUDIED THE LAKE IN 1971-72. THE WATER WAS TURBID AND ONLY ONE SAMPLE WAS TAKEN.



EXPLANATION
— 4 —
Line of equal
water depth
Interval 2 feet

Jones Lake, King County. Bathymetric map from
U.S. Geological Survey, June 29, 1973.
Aerial photo, April 30, 1973.

JOY LAKE

KING COUNTY

LATITUDE 47°41'36" LONGITUDE 121°52' 3" T26N-R7E-35
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.76 SQ MI
 ALTITUDE 527. FT
 LAKE AREA 110. ACRES
 LAKE VOLUME 2400. ACRE-FT
 MEAN DEPTH 23. FT
 MAXIMUM DEPTH 50. FT
 SHORELINE LENGTH 1.7 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.46
 BOTTOM SLOPE 2.1 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 100 %
 NUMBER OF NEARSHORE HOMES 69
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 17 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 61 %
 LAKE SURFACE 22 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

 DATE 7/18/73
 TIME 1230 1240
 DEPTH (FT) 3. 33.
 TOTAL NITRATE (N) 0.01 0.42
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.04 0.08
 TOTAL ORGANIC NITROGEN (N) 0.24 0.31
 TOTAL PHOSPHORUS (P) 0.007 0.020
 TOTAL ORTHOPHOSPHATE (P) 0.004 0.003
 SPECIFIC CONDUCTANCE (MICROMHOS) 34 36
 WATER TEMPERATURE (DEG C) 25.2 5.9
 COLOR (PLATINUM-COBALT UNITS) 10 15
 SECCHI-DISC VISIBILITY (FT) 6
 DISSOLVED OXYGEN 8.5 1.1

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE

7/18/73

TIME

1240

NUMBER OF FECAL COLIFORM SAMPLES

3

FECAL COLIFORM, MINIMUM (COL./100ML)

2

FECAL COLIFORM, MAXIMUM (COL./100ML)

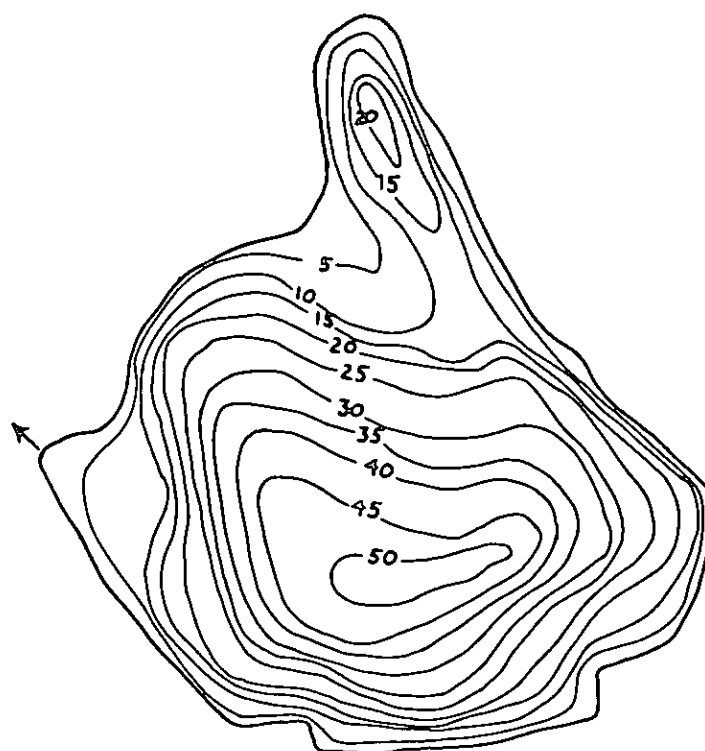
10

FECAL COLIFORM, MEAN (COL./100ML)

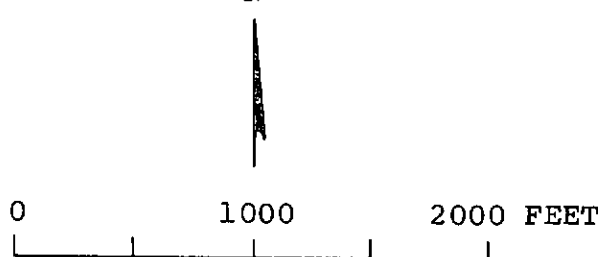
3

REMARKS

 A HIGH ALGAL CELL DENSITY OR MILD ALGAL BLOOM WAS OBSERVED. NO SUBMERSED
 AQUATIC PLANTS WERE VISIBLE. THE LITTORAL BOTTOM IS MOSTLY MUCK.



N



EXPLANATION

— 10 —
Line of equal
water depth
Interval 5 feet

Joy Lake, King County. From Washington Department of Game, August 5, 1952.



Joy Lake, King County. August 10, 1970. Approx. scale 1:12,000.

KALEETAN LAKE

KING COUNTY

LATITUDE 47°28' 4" LONGITUDE 121°29'49" T23N-R10E-23
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	1.04 SQ MI
ALTITUDE	3850. FT
LAKE AREA	41. ACRES
LAKE VOLUME	3500. ACRE-FT
MEAN DEPTH	85. FT
MAXIMUM DEPTH	180. FT
SHORELINE LENGTH	1.0 MI
SHORELINE CONFIGURATION	1.1
DEVELOPMENT OF VOLUME	0.47
BOTTOM SLOPE	12. %
BASIN GEOLOGY	IGNEOUS
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	0 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	94 %
LAKE SURFACE	6 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

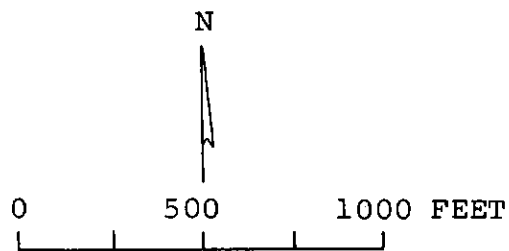
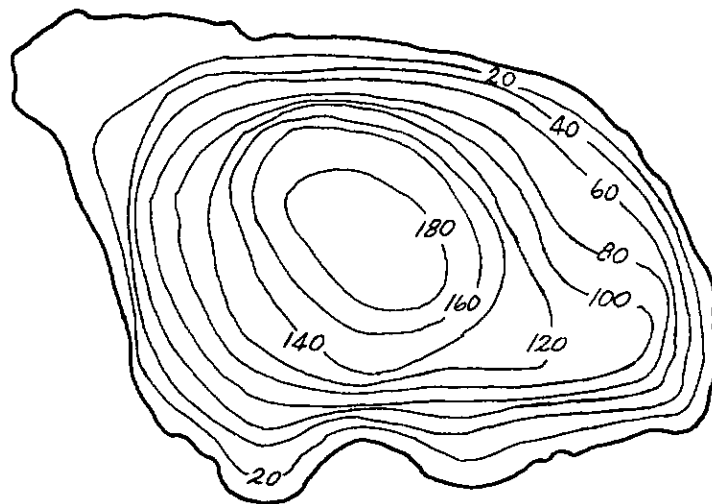
SAMPLE SITE	1
DATE	8/28/74
TIME	1500 1505
DEPTH (FT)	3. 157.
TOTAL NITRATE (N)	0.05 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.04 0.06
TOTAL ORGANIC NITROGEN (N)	-- --
TOTAL PHOSPHORUS (P)	0.003 0.004
TOTAL ORTHOPHOSPHATE (P)	0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS)	17 23
WATER TEMPERATURE (DEG C)	15.3 4.1
COLOR (PLATINUM-COBALT UNITS)	0 0
SECCHI-DISC VISIBILITY (FT)	44
DISSOLVED OXYGEN	9.4 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	8/28/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS FED BY TWO SMALL UPSTREAM LAKES.



EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Kaleetan Lake, King County. From U.S. Geological Survey, September 7, 1974.



Kaleetan Lake, King County. August 12, 1970. Approx. scale 1:12,000.

KATHLEEN LAKE

KING COUNTY

LATITUDE 47°28'29" LONGITUDE 122° 5'12" T23N-R6E-18
LAKE WASHINGTON BASIN

PHYSICAL DATA

DRAINAGE AREA	0.49 SQ MI
ALTITUDE	520. FT
LAKE AREA	51. ACRES
LAKE VOLUME	380. ACRE-FT
MEAN DEPTH	7. FT
MAXIMUM DEPTH	22. FT
SHORELINE LENGTH	1.4 MI
SHORELINE CONFIGURATION	1.4
DEVELOPMENT OF VOLUME	0.34
BOTTOM SLOPE	1.3 %
BASIN GEOLOGY	SED./META.
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	83 %
NUMBER OF NEARSHORE HOMES	37
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	14 %
AGRICULTURAL	16 %
FOREST OR UNPRODUCTIVE	54 %
LAKE SURFACE	16 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

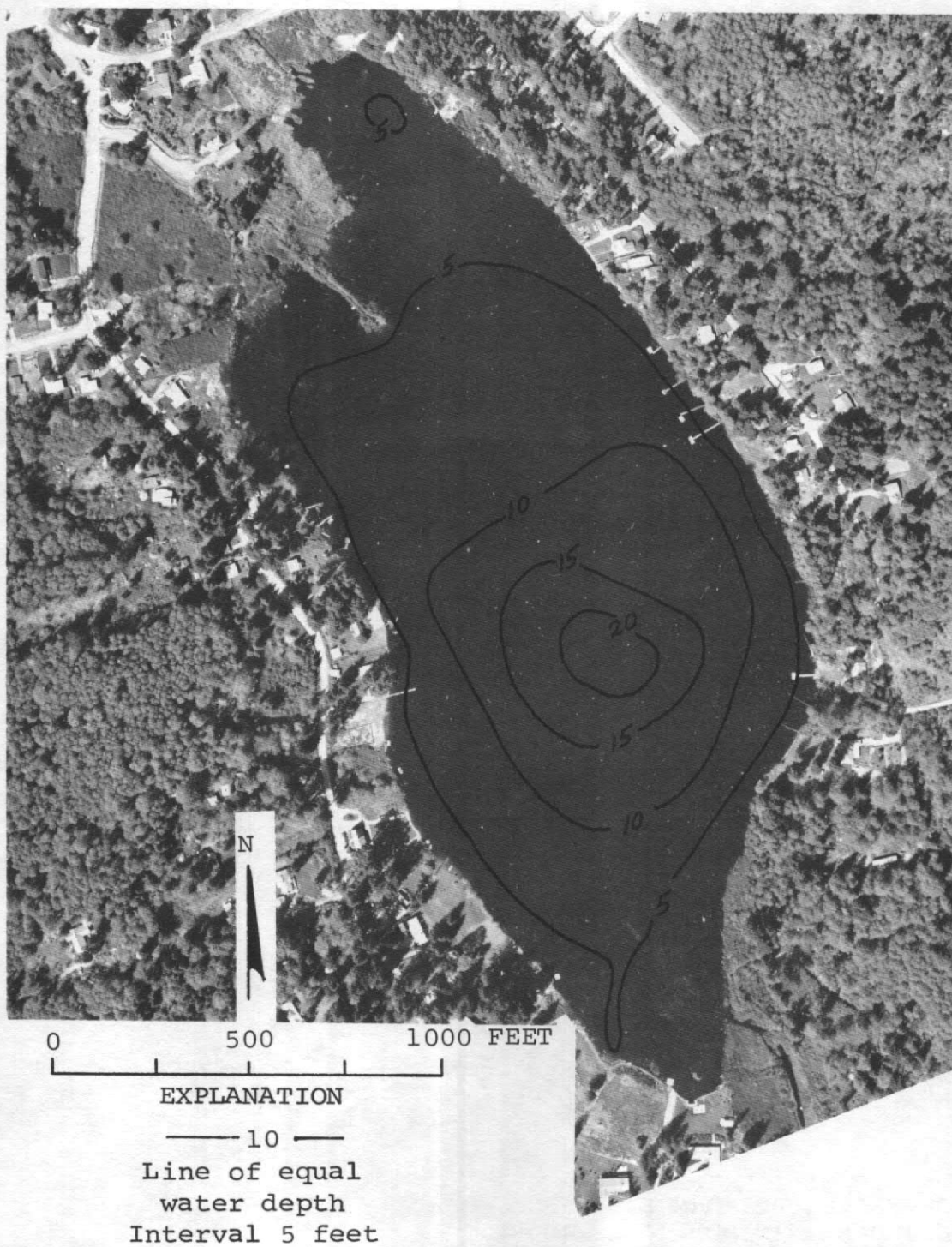
SAMPLE SITE	1
DATE	7/ 6/73
TIME	1210 1215
DEPTH (FT)	3. 10.
TOTAL NITRATE (N)	0.02 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.10 0.14
TOTAL ORGANIC NITROGEN (N)	0.02 0.02
TOTAL PHOSPHORUS (P)	0.010 0.017
TOTAL ORTHOPHOSPHATE (P)	0.004 0.005
SPECIFIC CONDUCTANCE (MICROMHOS)	42 43
WATER TEMPERATURE (DEG C)	19.6 16.9
COLOR (PLATINUM-COBALT UNITS)	20 20
SECCHI-DISC VISIBILITY (FT)	6
DISSOLVED OXYGEN	8.5 3.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	26- 50 %

DATE	7/ 6/73
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	8
FECAL COLIFORM, MAXIMUM (COL./100ML)	63
FECAL COLIFORM, MEAN (COL./100ML)	28

REMARKS

THE LAKE HAD A HEAVY GROWTH OF EMERSED PLANTS MOSTLY ON THE NORTH END, BUT NO SUBMERSED PLANTS WERE OBSERVED. THE WATER IS A SLIGHT TEA COLOR. THE LITTORAL BOTTOM IS MOSTLY MUCK. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Kathleen Lake, King County. Bathymetric map from
U.S. Geological Survey, June 27, 1973.
Aerial photo, April 30, 1973.

KILLARNEY (NORTH ARM) LAKE

KING COUNTY

LATITUDE 47°17'16" LONGITUDE 122°17'19" T21N-R4E-27
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.0 SQ MI
 ALTITUDE 385. FT
 LAKE AREA 11. ACRES
 LAKE VOLUME 60. ACRE-FT
 MEAN DEPTH 6. FT
 MAXIMUM DEPTH 13. FT
 SHORELINE LENGTH 0.68 MI
 SHORELINE CONFIGURATION 1.5
 DEVELOPMENT OF VOLUME 0.44
 BOTTOM SLOPE 1.7 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 56 %
 NUMBER OF NEARSHORE HOMES 6
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 11 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 75 %
 LAKE SURFACE 14 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

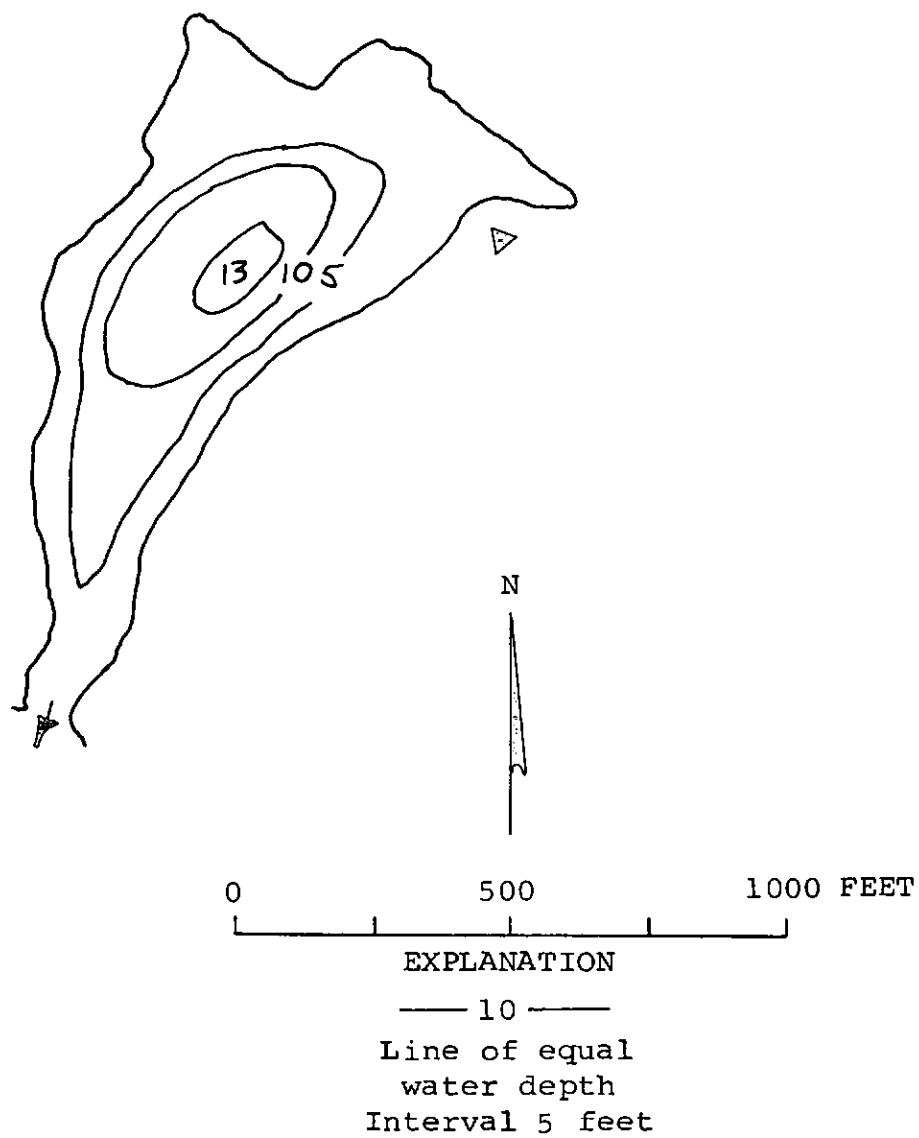
 DATE 7/ 5/73
 TIME 1200 1205
 DEPTH (FT) 3. 7.
 TOTAL NITRATE (N) 0.01 0.01
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.15 0.14
 TOTAL ORGANIC NITROGEN (N) 0.02 0.04
 TOTAL PHOSPHORUS (P) 0.029 0.036
 TOTAL ORTHOPHOSPHATE (P) 0.003 0.007
 SPECIFIC CONDUCTANCE (MICROMHOS) 55 56
 WATER TEMPERATURE (DEG C) 19.8 17.0
 COLOR (PLATINUM-COBALT UNITS) 30 30
 SECCHI-DISC VISIBILITY (FT) 6
 DISSOLVED OXYGEN 8.2 6.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 7/ 5/73
 TIME 1110
 NUMBER OF FECAL COLIFORM SAMPLES 1
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 31
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 EMERSED PLANTS COVERED MOST OF THE SHORELINE. THE LITTORAL BOTTOM IS MUCK
 THE NORTH ARM OF KILLARNEY LAKE WAS SAMPLED FOUR TIMES IN 1973 BY THE
 U.S. GEOLOGICAL SURVEY. THE PLANT SURVEY WAS CONDUCTED ON AUGUST 9, 1973.



Killarney (North Arm) Lake, King County.
From Washington Department of Game, February 1, 1949.



Killarney (North Arm) King County. May 17, 1973. Approx. scale 1:4800.

KILLARNEY (SOUTH ARM) LAKE

KING COUNTY

LATITUDE 47°17' 1" LONGITUDE 122°17'36" T21N-R4E-28

PUGET SOUND BASIN

PHYSICAL DATA

DRAINAGE AREA	0.24 SQ MI
ALTITUDE	385. FT
LAKE AREA	24. ACRES
LAKE VOLUME	230. ACRE-FT
MEAN DEPTH	9. FT
MAXIMUM DEPTH	15. FT
SHORELINE LENGTH	1.2 MI
SHORELINE CONFIGURATION	1.8
DEVELOPMENT OF VOLUME	0.62
BOTTOM SLOPE	1.3 %
BASIN GEOLOGY	SED./META.
INFLOW	NONE VISIBLE
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	100 %
NUMBER OF NEARSHORE HOMES	47
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	23 %
AGRICULTURAL	19 %
FOREST OR UNPRODUCTIVE	42 %
LAKE SURFACE	16 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

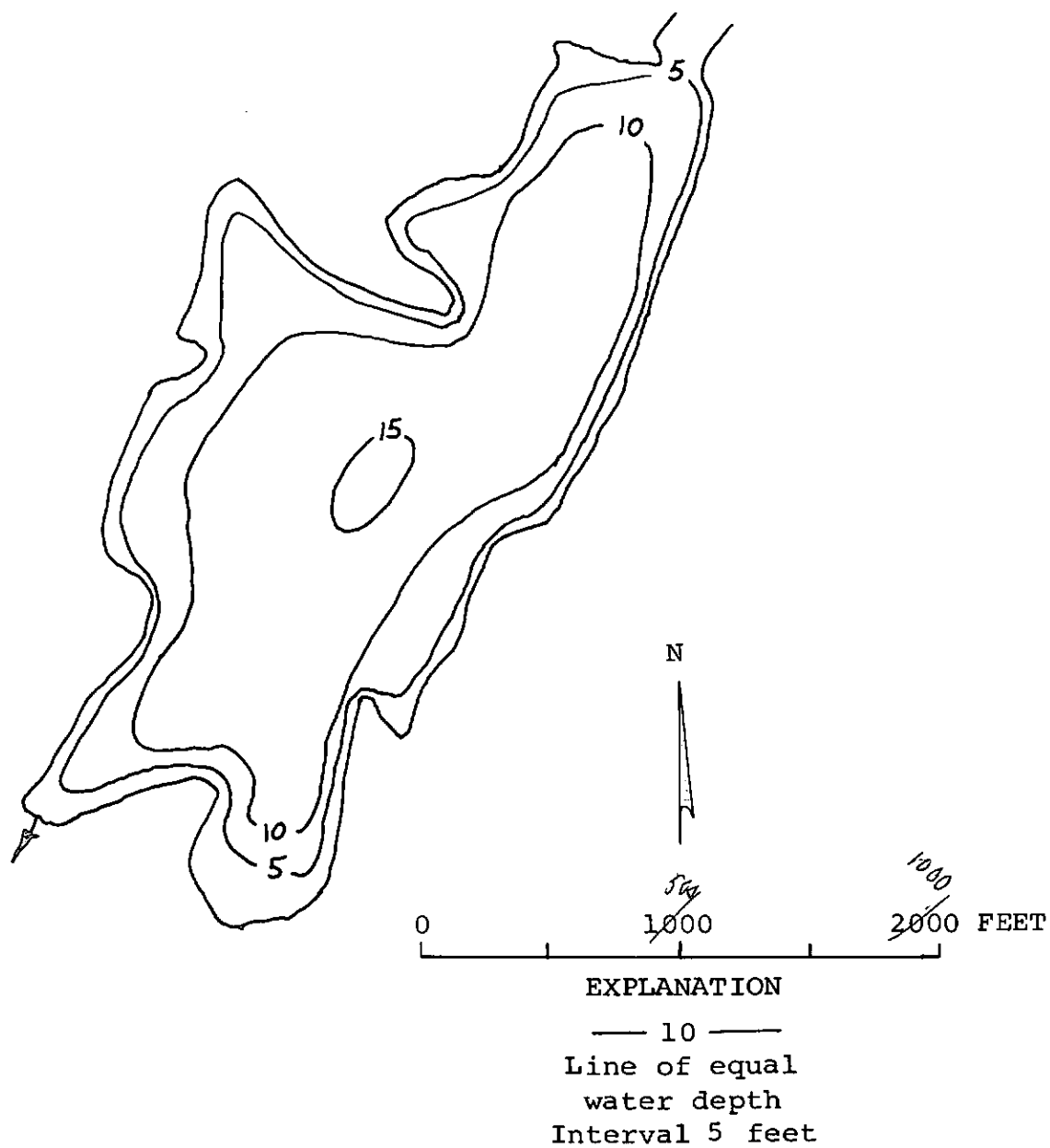
DATE	7/ 5/73	
TIME	1055	1100
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.01	0.09
TOTAL ORGANIC NITROGEN (N)	0.14	0.04
TOTAL PHOSPHORUS (P)	0.022	0.018
DISSOLVED ORTHOPHOSPHATE (P)	0.005	0.005
SPECIFIC CONDUCTANCE (MICROMHOS)	53	54
WATER TEMPERATURE (DEG C)	19.9	19.3
COLOR (PLATINUM-COBALT UNITS)	15	15
SECCHI-DISC VISIBILITY (FT)	9	
DISSOLVED OXYGEN	8.1	7.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/ 5/73
TIME	1110
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	21
FECAL COLIFORM, MAXIMUM (COL./100ML)	32
FECAL COLIFORM, MEAN (COL./100ML)	26

REMARKS

THE SOUTH ARM OF KILLARNEY LAKE WAS SAMPLED FOUR TIMES IN 1973 BY THE U.S. GEOLOGICAL SURVEY. THE PLANT SURVEY WAS CONDUCTED ON AUGUST 9, 1973.



Killarney (South Arm) Lake, King County.
From Washington Department of Game, February 1, 1949.



Killarney (South Arm) Lake, King County. May 17, 1973. Approx. scale 1:4800.

KLAUS LAKE

KING COUNTY

LATITUDE 47°34'42" LONGITUDE 121°45'18" T24N-R8E-11
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.47 SQ MI
 ALTITUDE 983. FT
 LAKE AREA 42. ACRES
 LAKE VOLUME 630. ACRE-FT
 MEAN DEPTH 15. FT
 MAXIMUM DEPTH 32. FT
 SHORELINE LENGTH 1.5 MI
 SHORELINE CONFIGURATION 1.6
 DEVELOPMENT OF VOLUME 0.47
 BOTTOM SLOPE 2.1 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 90 %
 LAKE SURFACE 10 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

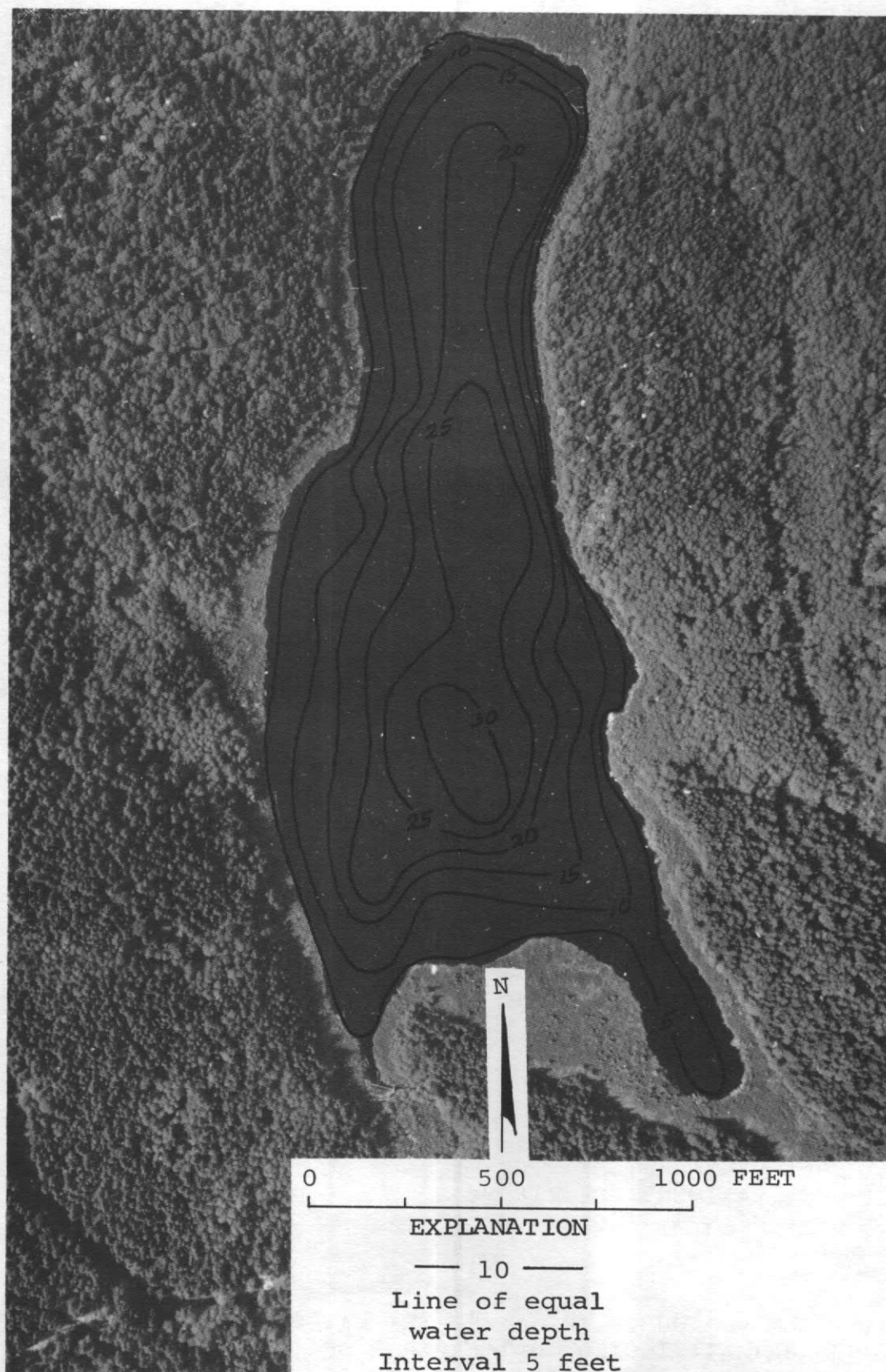
 SAMPLE SITE 1
 DATE 7/12/73
 TIME 1100 1110
 DEPTH (FT) 3. 22.
 TOTAL NITRATE (N) 0.22 0.21
 TOTAL NITRITE (N) 0.01 0.01
 TOTAL AMMONIA (N) 0.04 0.16
 TOTAL ORGANIC NITROGEN (N) 0.23 0.16
 TOTAL PHOSPHORUS (P) 0.013 0.018
 TOTAL ORTHOPHOSPHATE (P) 0.001 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 38 41
 WATER TEMPERATURE (DEG C) 21.0 8.8
 COLOR (PLATINUM-COBALT UNITS) 25 35
 SECCHI-DISC VISIBILITY (FT) 12
 DISSOLVED OXYGEN 9.3 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/12/73
 TIME 1130
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 A BOG VEGETATION SURROUNDS THE LAKE. THE WATER HAS A SLIGHT TEA COLOR WHICH IS PROBABLY ATTRIBUTED TO THE MARSH DRAINAGE. NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE LITTORAL BOTTOM IS A VERY SOFT OOZE OR MUCK. LOGS COVER MUCH OF THE SHORELINE.



EXPLANATION

— 10 —
Line of equal
water depth
Interval 5 feet

Klaus Lake, King County. Bathymetric map from
U.S. Geological Survey, July 12, 1973.
Aerial photo, May 13, 1973.

KULLA KULLA LAKE

KING COUNTY

LATITUDE 47°25'55" LONGITUDE 121°32'33" T23N-R10E-33
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.55 SQ MI
ALTITUDE 3765. FT
LAKE AREA 54. ACRES
LAKE VOLUME 4700. ACRE-FT
MEAN DEPTH 88. FT
MAXIMUM DEPTH 210. FT
SHORELINE LENGTH 1.2 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.43
BOTTOM SLOPE 12. %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 85 %
LAKE SURFACE 15 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

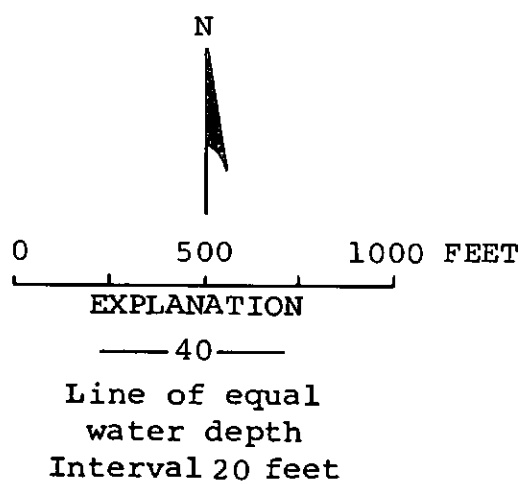
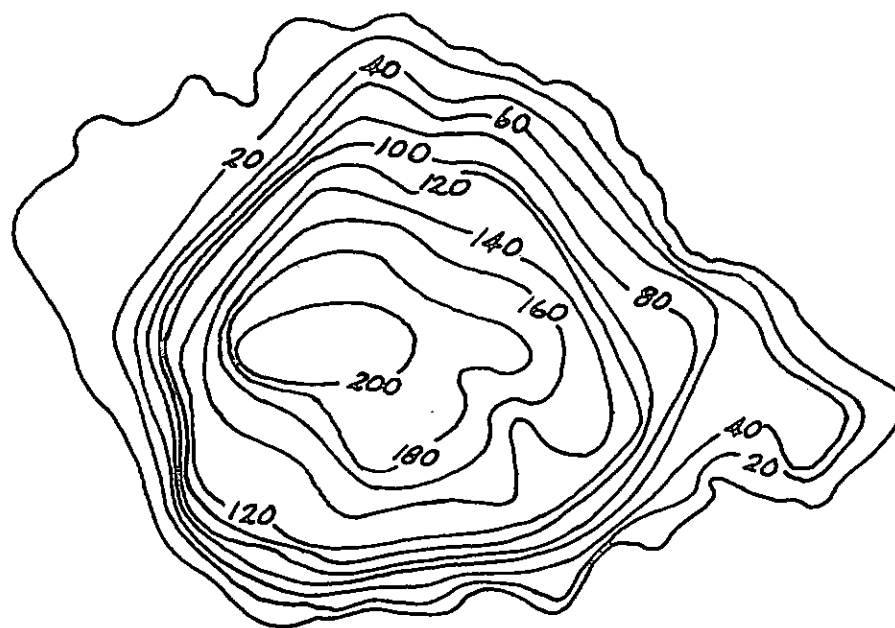
SAMPLE SITE 1
DATE 8/28/74
TIME 1200 1205
DEPTH (FT) 3. 157.
TOTAL NITRATE (N) 0.04 0.09
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.03 0.03
TOTAL ORGANIC NITROGEN (N) -- --
TOTAL PHOSPHORUS (P) 0.002 0.006
TOTAL ORTHOPHOSPHATE (P) 0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS) 8 12
WATER TEMPERATURE (DEG C) 16.0 4.0
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 53
DISSOLVED OXYGEN 9.0 5.2

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/28/74
TIME 1130
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

NO AQUATIC PLANTS WERE OBSERVED. LOGS COVERED THE SHORELINE.



Kulla Kulla Lake, King County. From U.S. Geological Survey, September 5, 1974.



Kulla Kulla Lake, King County. August 12, 1970. Approx. scale 1:12,000.

LANGLOIS LAKE

KING COUNTY

LATITUDE 47°38' 8" LONGITUDE 121°53' 3" T25N-R7E-22
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.37 SQ MI
 ALTITUDE 122. FT
 LAKE AREA 39. ACRES
 LAKE VOLUME 2000. ACRE-FT
 MEAN DEPTH 53. FT
 MAXIMUM DEPTH 98. FT
 SHORELINE LENGTH 1.1 MI
 SHORELINE CONFIGURATION 1.3
 DEVELOPMENT OF VOLUME 0.54
 BOTTOM SLOPE 6.7 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL ABSENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 11 %
 NUMBER OF NEARSHORE HOMES 2
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 1 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 83 %
 LAKE SURFACE 16 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

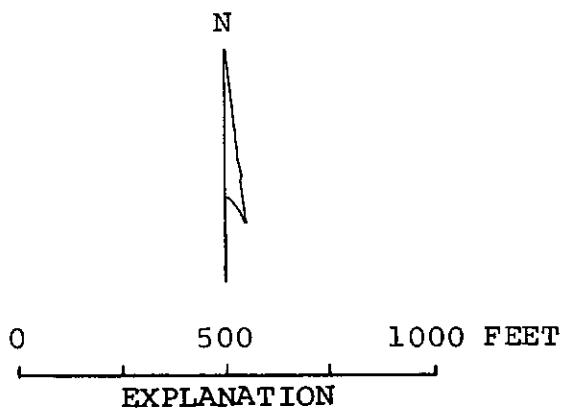
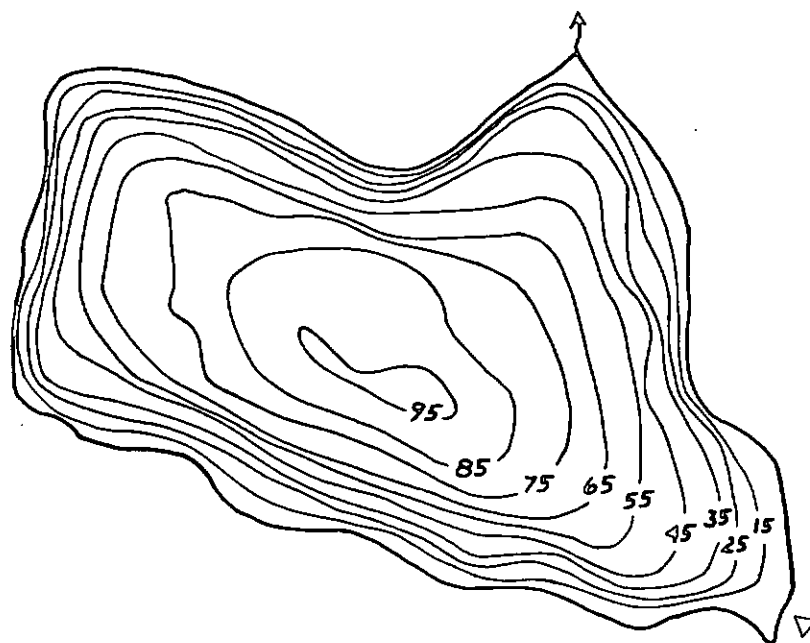
 SAMPLE SITE 1
 DATE 6/28/73
 TIME 1115 1120
 DEPTH (FT) 3. 89.
 TOTAL NITRATE (N) 0.01 0.12
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.08 140.
 TOTAL ORGANIC NITROGEN (N) 0.07 0.00
 TOTAL PHOSPHORUS (P) 0.011 13.
 DISSOLVED ORTHOPHOSPHATE (P) 0.001 0.50
 SPECIFIC CONDUCTANCE (MICROMHOS) 50 890
 WATER TEMPERATURE (DEG C) 20.4 5.8
 COLOR (PLATINUM-COBALT UNITS) 5 45
 SECCHI-DISC VISIBILITY (FT) 14
 DISSOLVED OXYGEN 9.3 0.9

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 6/28/73
 TIME 1200
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 2
 FECAL COLIFORM, MAXIMUM (COL./100ML) 3
 FECAL COLIFORM, MEAN (COL./100ML) 3

REMARKS

 A DEEP CONICAL-SHAPED LAKE IN WHICH THE BOTTOM WATER NEVER MIXES THROUGH-
 OUT THE YEAR. HYDROGEN SULFIDE WAS DETECTED IN THE BOTTOM WATER. THE
 LITTORAL BOTTOM IS SILTY AND COVERED WITH LOG AND WOOD DEBRIS. ABOUT 85
 PERCENT OF THE SHORELINE IS OWNED BY THE GIRL SCOUTS OF AMERICA. IN 1973
 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY
 WAS CONDUCTED ON AUGUST 17, 1973.

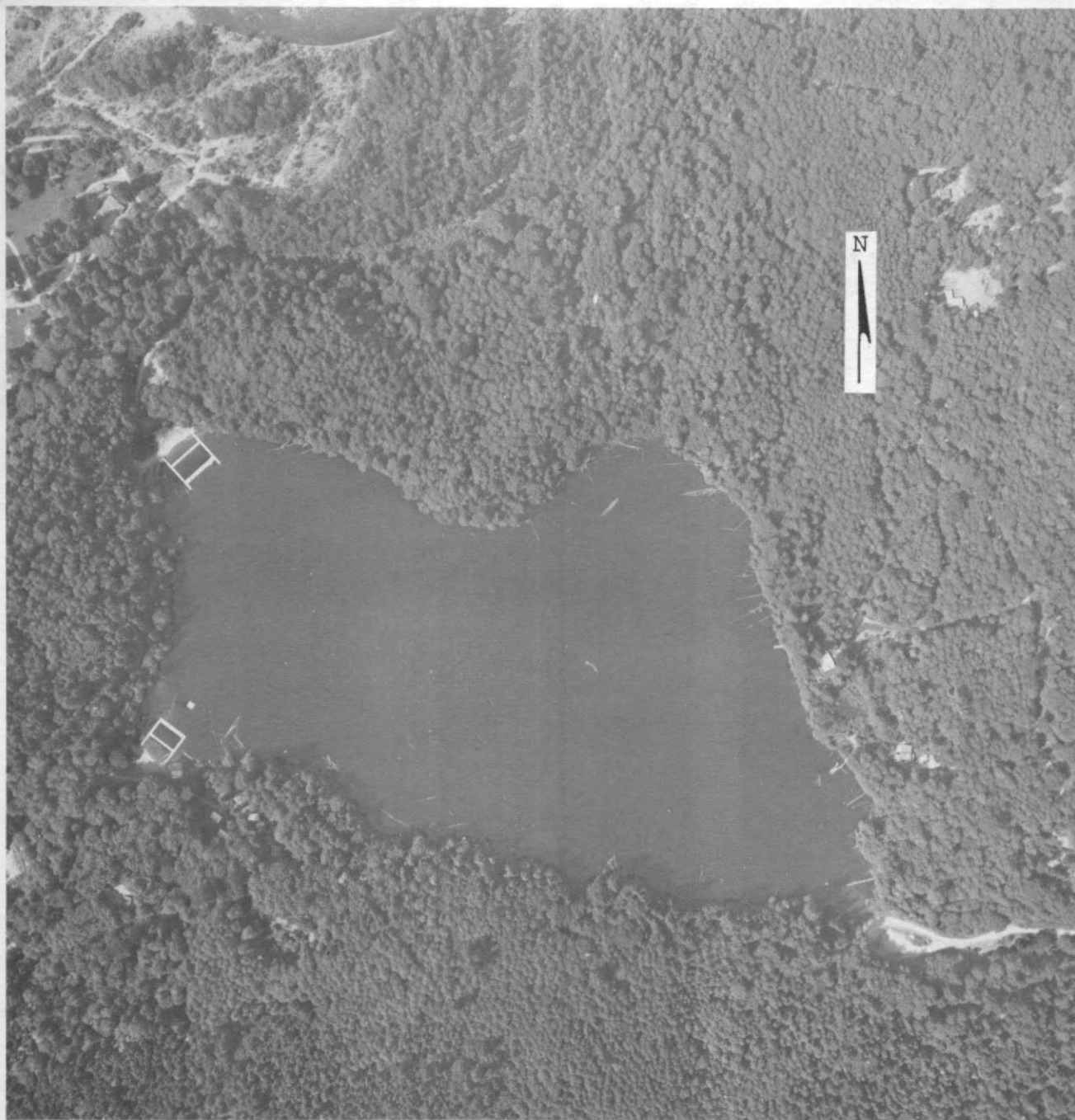


EXPLANATION

—25—

Line of equal
water depth
Interval 15 feet

Langlois Lake, King County. From Washington Department of Game, August 28, 1947.



Langlois Lake, King County. May 17, 1973. Approx. scale 1:4800.

LARSEN LAKE

KING COUNTY

LATITUDE 47°36'22" LONGITUDE 122° 8'21" T25N-R5E-35
LAKE WASHINGTON BASIN

PHYSICAL DATA

DRAINAGE AREA 0.31 SQ MI
ALTITUDE 245. FT
LAKE AREA 10. ACRES
LAKE VOLUME 95. ACRE-FT
MEAN DEPTH 9. FT
MAXIMUM DEPTH 16. FT
SHORELINE LENGTH 0.47 MI
SHORELINE CONFIGURATION 1.0
DEVELOPMENT OF VOLUME 0.57
BOTTOM SLOPE 2.1 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 4 %
NUMBER OF NEARSHORE HOMES 1
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 61 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 34 %
FOREST OR UNPRODUCTIVE 0 %
LAKE SURFACE 5 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/16/73
TIME 1340 1345
DEPTH (FT) 3. 10.
TOTAL NITRATE (N) 0.00 0.01
TOTAL NITRITE (N) 0.02 0.01
TOTAL AMMONIA (N) 1.9 1.4
TOTAL ORGANIC NITROGEN (N) 4.5 1.4
TOTAL PHOSPHORUS (P) 0.62 1.1
TOTAL ORTHOPHOSPHATE (P) 0.37 0.96
SPECIFIC CONDUCTANCE (MICROMHOS) 104 116
WATER TEMPERATURE (DEG C) 22.5 14.9
COLOR (PLATINUM-COBALT UNITS) 200 200
SECCHI-DISC VISIBILITY (FT) 1
DISSOLVED OXYGEN 8.5 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/16/73
TIME 1350
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 3
FECAL COLIFORM, MEAN (COL./100ML) 2

REMARKS

A SMALL URBAN LAKE NEAR BELLEVUE. EMERSED PLANTS COVERED THE SHORELINE.
NO SUBMERSED PLANTS WERE OBSERVED. THE WATER IS HIGHLY COLORED AND THE
LITTORAL BOTTOM IS A VERY SOFT MUCK. AN ALGAL BLOOM WAS OBSERVED.



Larson Lake, King County. Bathymetric map from
U.S. Geological Survey, July 11, 1973.
Aerial photo, May 17, 1973.

LEOTA LAKE

KING COUNTY

LATITUDE 47°45'33" LONGITUDE 122° 7'20" T26N-R5E-11
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.79 SQ MI
ALTITUDE	330. FT
LAKE AREA	10. ACRES
LAKE VOLUME	120. ACRE-FT
MEAN DEPTH	12. FT
MAXIMUM DEPTH	24. FT
SHORELINE LENGTH	0.51 MI
SHORELINE CONFIGURATION	1.1
DEVELOPMENT OF VOLUME	0.49
BOTTOM SLOPE	3.2 %
BASEIN GEOLOGY	SED./META.
INFLOW	NONE VISIBLE
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	100 %
NUMBER OF NEARSHORE HOMES	35
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	7 %
AGRICULTURAL	25 %
FOREST OR UNPRODUCTIVE	66 %
LAKE SURFACE	2 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

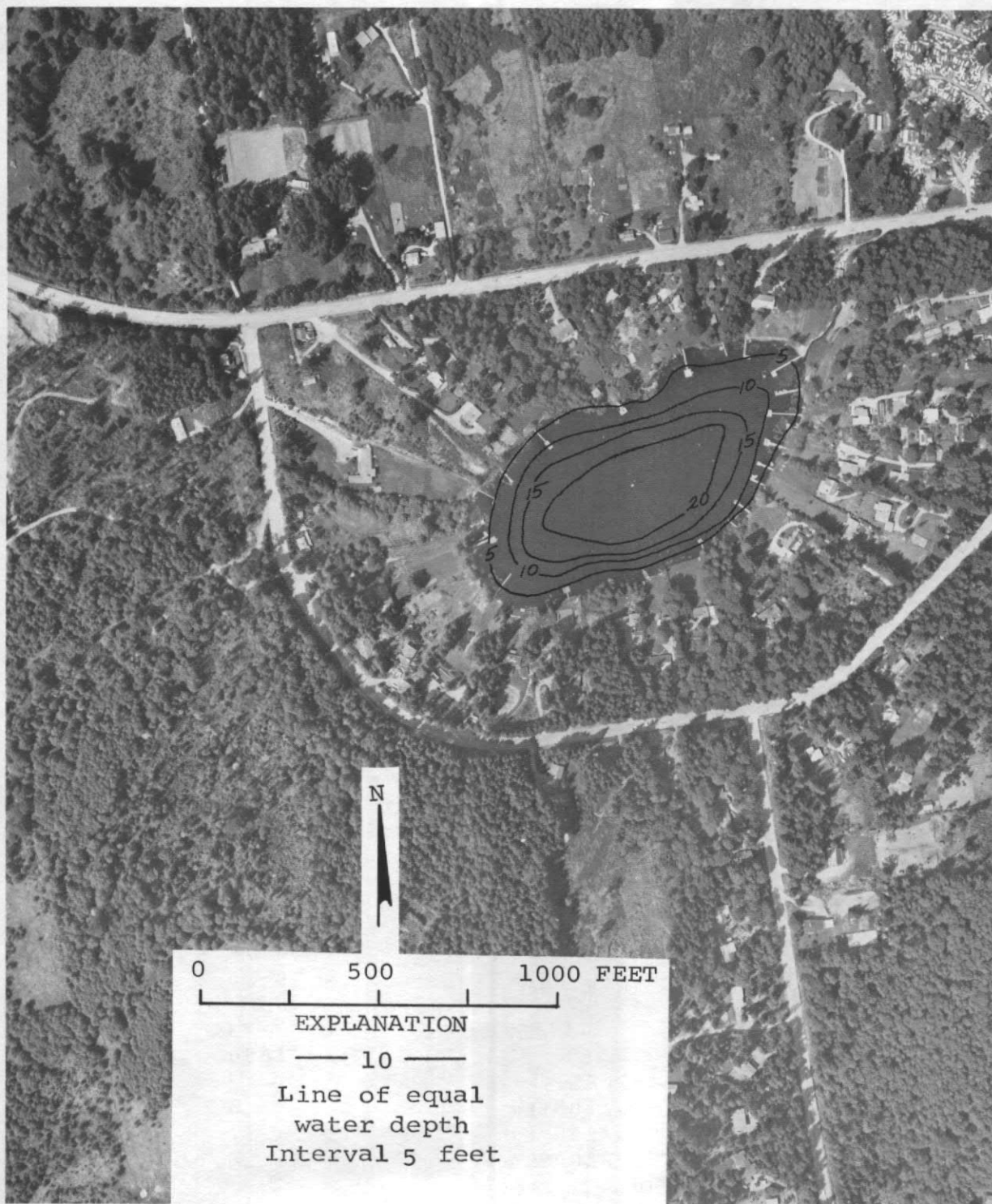
SAMPLE SITE	1
DATE	8/ 7/73
TIME	1350 1355
DEPTH (FT)	3. 19.
TOTAL NITRATE (N)	0.04 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.16 0.81
TOTAL ORGANIC NITROGEN (N)	0.33 0.39
TOTAL PHOSPHORUS (P)	0.012 0.057
TOTAL ORTHOPHOSPHATE (P)	0.007 0.027
SPECIFIC CONDUCTANCE (MICROMHOS)	60 76
WATER TEMPERATURE (DEG C)	21.2 8.0
COLOR (PLATINUM-COBALT UNITS)	15 70
SECCHI-DISC VISIBILITY (FT)	12
DISSOLVED OXYGEN	7.9 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	8/ 7/73
TIME	1400
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	8
FECAL COLIFORM, MAXIMUM (COL./100ML)	11
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LITTORAL BOTTOM IS MUCK.



Leota Lake, King County. Bathymetric map from
U.S. Geological Survey, July 10, 1973.
Aerial photo, May 17, 1973.

LOCH KATRINE LAKE

KING COUNTY

LATITUDE 47°38'23" LONGITUDE 121°36'10" T25N-R9E-24
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.28 SQ MI
 ALTITUDE 2885. FT
 LAKE AREA 49. ACRES
 LAKE VOLUME 3700. ACRE-FT
 MEAN DEPTH 76. FT
 MAXIMUM DEPTH 200. FT
 SHORELINE LENGTH 1.3 MI
 SHORELINE CONFIGURATION 1.3
 DEVELOPMENT OF VOLUME 0.39
 BOTTOM SLOPE 12. %
 BASIN GEOLOGY SED./META.
 INFLOW PERENNIAL
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 91 %
 LAKE SURFACE 9 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

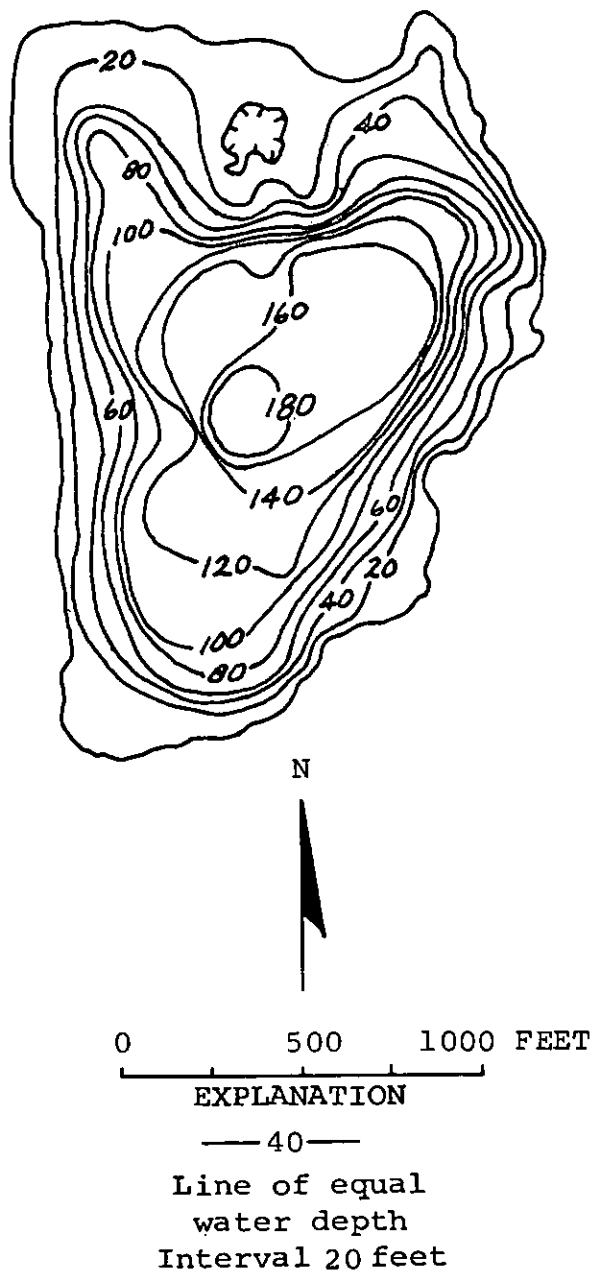
 SAMPLE SITE 1
 DATE 9/ 3/74
 TIME 1500 1505
 DEPTH (FT) 3. 157.
 TOTAL NITRATE (N) 0.02 0.10
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.05 0.12
 TOTAL ORGANIC NITROGEN (N) -- --
 TOTAL PHOSPHORUS (P) 0.000 0.002
 TOTAL ORTHOPHOSPHATE (P) 0.000 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 7 14
 WATER TEMPERATURE (DEG C) 15.0 3.8
 COLOR (PLATINUM-COBALT UNITS) 0 10
 SECCHI-DISC VISIBILITY (FT) 46
 DISSOLVED OXYGEN 9.6 3.2

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 9/ 3/74
 TIME 1410
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 FLOATING LOGS AND WOOD DEBRIS COVERED THE SHORELINE. NO AQUATIC PLANTS
 WERE OBSERVED.



Loch Katrine Lake, King County. From U.S. Geological Survey, September 6, 1974.



Loch Katrine Lake, King County. August 3, 1970. Approx. scale 1:12,000.

LOCH KATRINE, UPPER LAKE

KING COUNTY

LATITUDE 47°37'21" LONGITUDE 121°35'58" T25N-R9E-25
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.33 SQ MI
 ALTITUDE 4250. FT
 LAKE AREA 23. ACRES
 LAKE VOLUME 1600. ACRE-FT
 MEAN DEPTH 70. FT
 MAXIMUM DEPTH 130. FT
 SHORELINE LENGTH 0.81 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.53
 BOTTOM SLOPE 12. %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 89 %
 LAKE SURFACE 11 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

 SAMPLE SITE 1
 DATE 9/ 3/74
 TIME 1305 1355
 DEPTH (FT) 3. 72.
 TOTAL NITRATE (N) 0.02 0.05
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.04 0.05
 TOTAL ORGANIC NITROGEN (N) 0.00 --
 TOTAL PHOSPHORUS (P) 0.000 0.001
 TOTAL ORTHOPHOSPHATE (P) 0.000 0.000
 SPECIFIC CONDUCTANCE (MICROMHOS) 7 11
 WATER TEMPERATURE (DEG C) 7.9 3.7
 COLOR (PLATINUM-COBALT UNITS) 0 0
 SECCHI-DISC VISIRILITY (FT) 59
 DISSOLVED OXYGEN 10.0 5.5

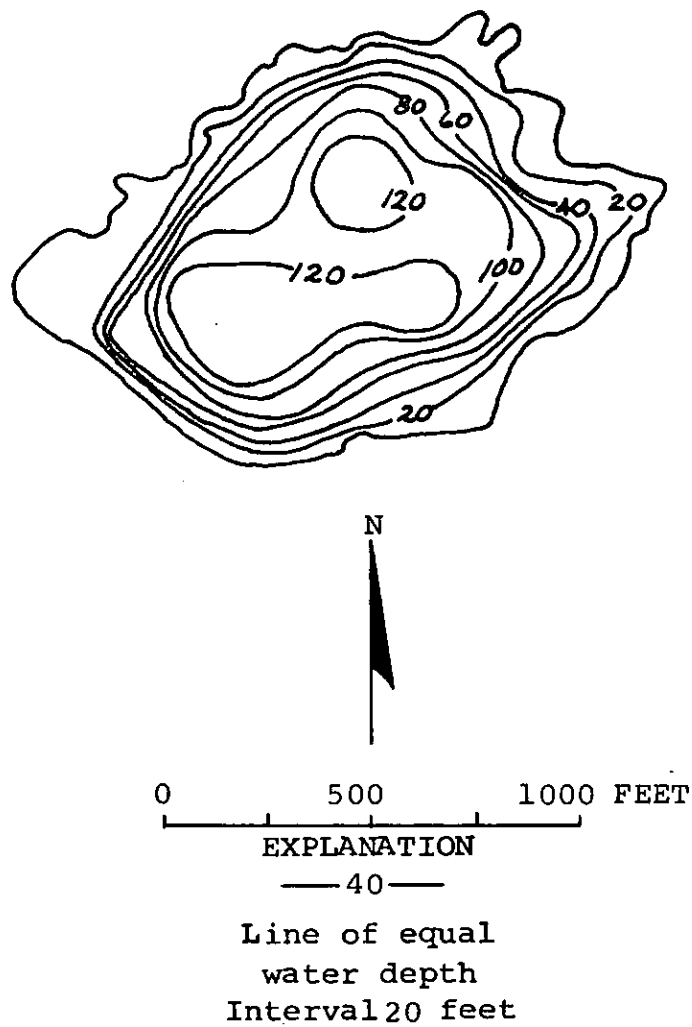
LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE 9/ 3/74
 TIME 1315
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 NO AQUATIC PLANTS WERE OBSERVED.



Loch Katrine, Upper Lake, King County. From U.S. Geological Survey, September 6, 1974.



Loch Katrine, Upper Lake, King County. August 3, 1970. Approx. scale 1:12,000.

LOOP LAKE

KING COUNTY

LATITUDE 47°39' 4" LONGITUDE 121°51' 3" T25N-R7E-13
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.41 SQ MI
 ALTITUDE 550. FT
 LAKE AREA 44. ACRES
 LAKE VOLUME 230. ACRE-FT
 MEAN DEPTH 5. FT
 MAXIMUM DEPTH 6. FT
 SHORELINE LENGTH 1.9 MI
 SHORELINE CONFIGURATION 2.1
 DEVELOPMENT OF VOLUME 0.87
 BOTTOM SLOPE 0.38 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL ABSENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 83 %
 LAKE SURFACE 17 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

1
 DATE 0/ 0/ 0
 TIME 0 --
 DEPTH (FT) 0. --
 TOTAL NITRATE (N) -- --
 TOTAL NITRITE (N) -- --
 TOTAL AMMONIA (N) -- --
 TOTAL ORGANIC NITROGEN (N) -- --
 TOTAL PHOSPHORUS (P) -- --
 TOTAL ORTHOPHOSPHATE (P) -- --
 SPECIFIC CONDUCTANCE (MICROMHOS) -- --
 WATER TEMPERATURE (DEG C) -- --
 COLOR (PLATINUM-COBALT UNITS) -- --
 SECCHI-DISC VISIBILITY (FT) -- --
 DISSOLVED OXYGEN -- --

LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE 0/ 0/ 0
 TIME 0
 NUMBER OF FECAL COLIFORM SAMPLES 0
 FECAL COLIFORM, MINIMUM (COL./100ML) --
 FECAL COLIFORM, MAXIMUM (COL./100ML) --
 FECAL COLIFORM, MEAN (COL./100ML) --

REMARKS

 THE PRESENCE OF SNAGS ON THE LAKE SURFACE PRECLUDED A HELICOPTER LANDING
 AND THE TAKING OF WATER SAMPLES. THE ENTIRE SHORELINE AND MOST OF THE
 LAKE SURFACE WERE COVERED WITH DENSE BEDS OF EMERSED AQUATIC PLANTS
 (WATER SHIELD AND SEDGE).



Loop Lake, King County. Bathymetric map from
U.S. Geological Survey, June 26, 1974.
Aerial photo, August 10, 1970.

LUCERNE LAKE

KING COUNTY

LATITUDE 47°22' 4" LONGITUDE 122° 2'53" T22N-R6E-28
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.63 SQ MI
ALTITUDE 530. FT
LAKE AREA 18. ACRES
LAKE VOLUME 310. ACRE-FT
MEAN DEPTH 18. FT
MAXIMUM DEPTH 37. FT
SHORELINE LENGTH 0.70 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.47
BOTTOM SLOPE 3.7 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 88 %
NUMBER OF NEARSHORE HOMES 44
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 5 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 77 %
LAKE SURFACE 18 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

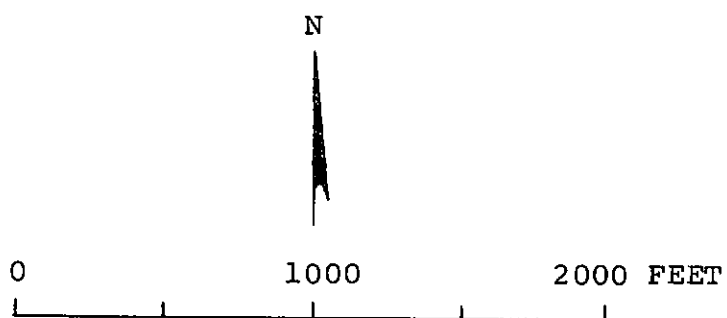
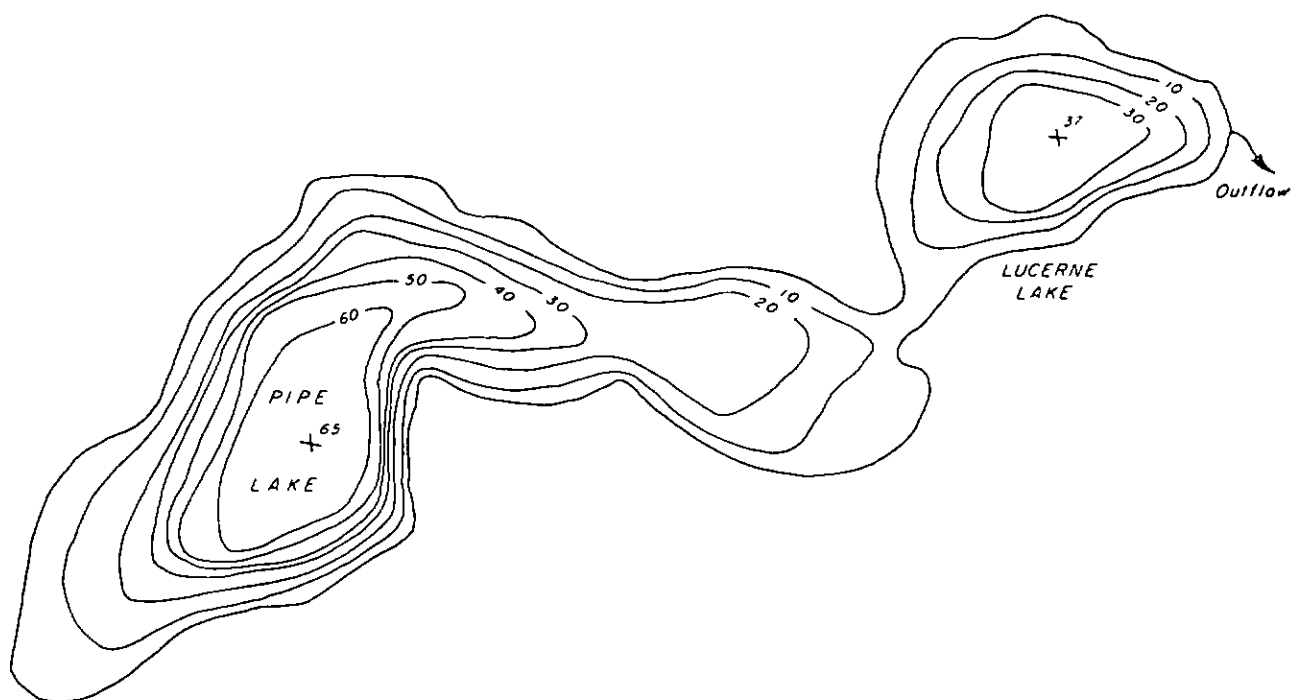
SAMPLE SITE 1
DATE 10/21/70
TIME 910 915
DEPTH (FT) 3. 27.
TOTAL NITRATE (N) 0.14 0.50
TOTAL NITRITE (N) -- --
TOTAL AMMONIA (N) -- --
TOTAL ORGANIC NITROGEN (N) -- --
TOTAL PHOSPHORUS (P) 0.006 0.010
TOTAL ORTHOPHOSPHATE (P) 0.003 0.006
SPECIFIC CONDUCTANCE (MICROMHOS) 48 67
WATER TEMPERATURE (DEG C) 11.5 6.7
COLOR (PLATINUM-COBALT UNITS) 5 5
SECCHI-DISC VISIBILITY (FT) 11
DISSOLVED OXYGEN 9.1 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 0/ 0/ 0
TIME 0
NUMBER OF FECAL COLIFORM SAMPLES 0
FECAL COLIFORM, MINIMUM (COL./100ML) --
FECAL COLIFORM, MAXIMUM (COL./100ML) --
FECAL COLIFORM, MEAN (COL./100ML) --

REMARKS

EMERSED PLANTS COVERED MOST OF THE SHORELINE AND ABOUT 5 PERCENT OF THE LAKE SURFACE. THE LAKE IS CONNECTED TO PIPE LAKE BY A NARROW CHANNEL. IN 1970 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE THREE TIMES. THE PLANT SURVEY WAS CONDUCTED ON OCTOBER 21, 1970. NO FECAL COLIFORM DATA WERE COLLECTED. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Lucerne Lake, King County. From U.S. Geological Survey, February 3, 1955.



Lucerne Lake, King County. July 14, 1971. Approx. scale 1:7100.

LYNCH LAKE

KING COUNTY

LATITUDE 47°42'28" LONGITUDE 121°43'30" T26N-R8E-25
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.23 SQ MI
 ALTITUDE 1325. FT
 LAKE AREA 23. ACRES
 LAKE VOLUME 460. ACRE-FT
 MEAN DEPTH 20. FT
 MAXIMUM DEPTH 50. FT
 SHORELINE LENGTH 0.77 MI
 SHORELINE CONFIGURATION 1.1
 DEVELOPMENT OF VOLUME 0.40
 BOTTOM SLOPE 4.4 %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 84 %
 LAKE SURFACE 16 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

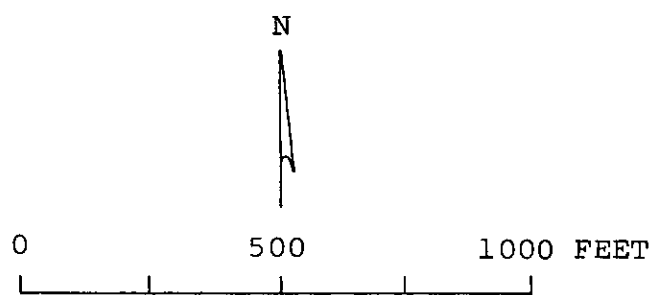
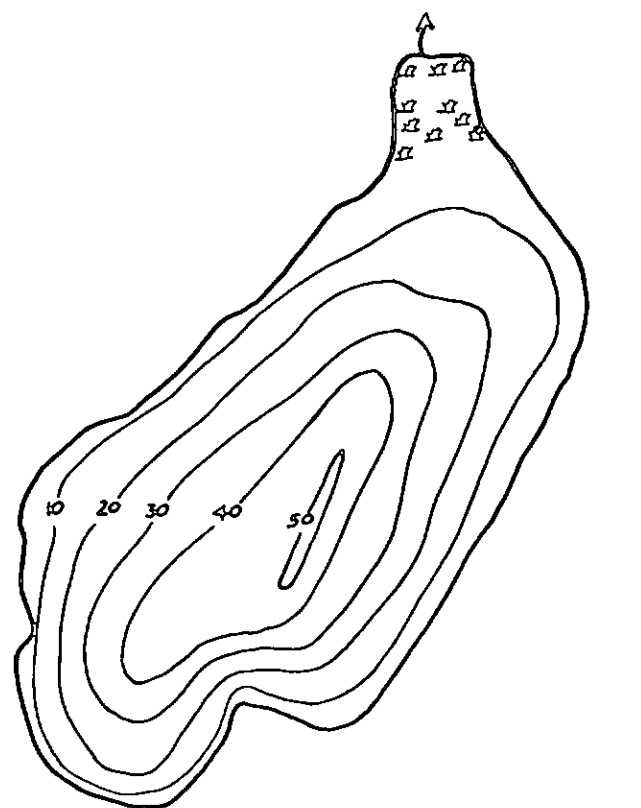
 SAMPLE SITE 1
 DATE 7/18/73
 TIME 1330 1340
 DEPTH (FT) 3. 43.
 TOTAL NITRATE (N) 0.01 0.01
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.11
 TOTAL ORGANIC NITROGEN (N) 0.11 0.16
 TOTAL PHOSPHORUS (P) 0.004 0.034
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.009
 SPECIFIC CONDUCTANCE (MICROMHOS) 61 67
 WATER TEMPERATURE (DEG C) 24.0 5.4
 COLOR (PLATINUM-COBALT UNITS) 10 10
 SECCHI-DISC VISIBILITY (FT) 14
 DISSOLVED OXYGEN 8.4 0.9

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/18/73
 TIME 1330
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

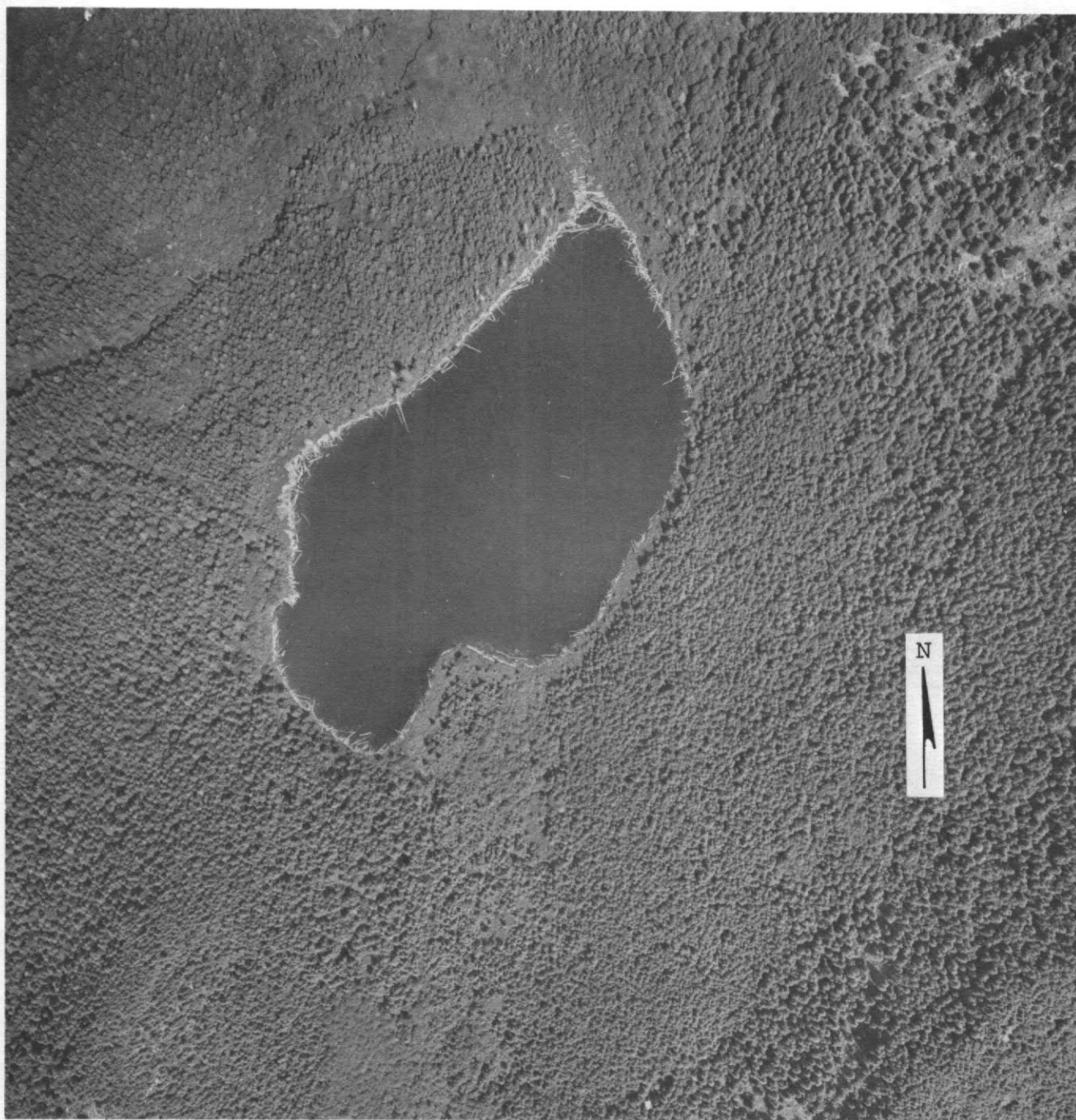
REMARKS

 THE LITTORAL BOTTOM IS MUCK AND THE INFLOW DRAINS A MARSH. HYDROGEN
 SULFIDE WAS DETECTED IN THE HYPOLIMNION. MANY LOGS COVER THE SHORELINE.



EXPLANATION
 — 20 —
 Line of equal
 water depth
 Interval 10 feet

Lynch Lake, King County. From Washington Department of Game, June 4, 1958.



Lynch Lake, King County. July 15, 1973. Approx. scale 1:4800.

MARGARET LAKE

KING COUNTY

LATITUDE 47°46' 2" LONGITUDE 121°53'59" T26N-R7E-3
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	2.38 SQ MI
ALTITUDE	798. FT
LAKE AREA	45. ACRES
LAKE VOLUME	820. ACRE-FT
MEAN DEPTH	18. FT
MAXIMUM DEPTH	43. FT
SHORELINE LENGTH	1.7 MI
SHORELINE CONFIGURATION	1.8
DEVELOPMENT OF VOLUME	0.42
BOTTOM SLOPE	2.7 %
BASIN GEOLOGY	SED./META.
INFLOW	PERENNIAL
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	94 %
NUMBER OF NEARSHORE HOMES	52
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	1 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	94 %
LAKE SURFACE	5 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

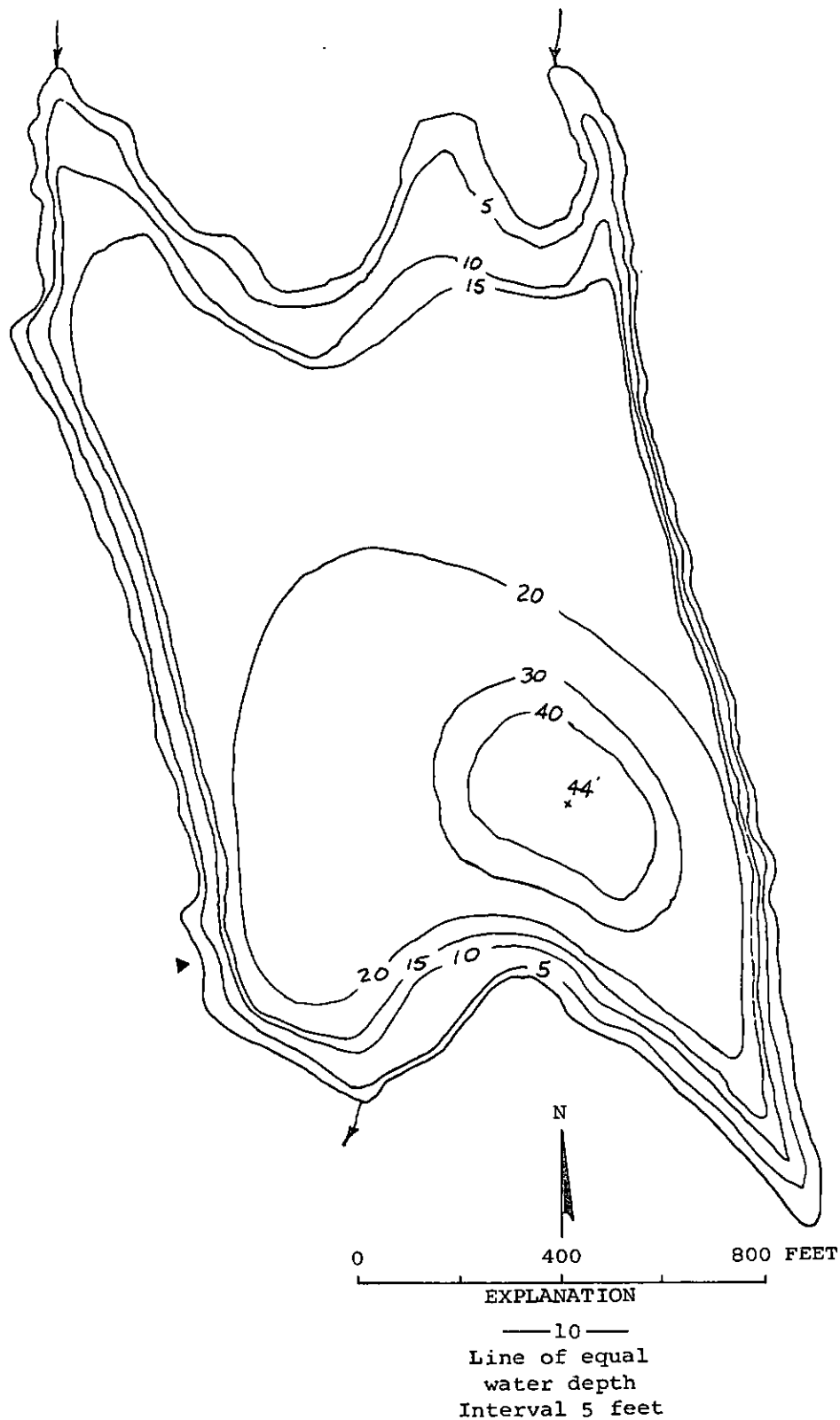
SAMPLE SITE	1
DATE	6/28/73
TIME	1425 1430
DEPTH (FT)	3. 36.
TOTAL NITRATE (N)	0.17 0.28
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.10 0.06
TOTAL ORGANIC NITROGEN (N)	0.09 0.04
TOTAL PHOSPHORUS (P)	0.015 0.020
DISSOLVED ORTHOPHOSPHATE (P)	0.005 0.005
SPECIFIC CONDUCTANCE (MICROMHOS)	31 29
WATER TEMPERATURE (DEG C)	19.8 7.8
COLOR (PLATINUM-COBALT UNITS)	5 5
SECCHI-DISC VISIBILITY (FT)	13
DISSOLVED OXYGEN	8.6 1.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

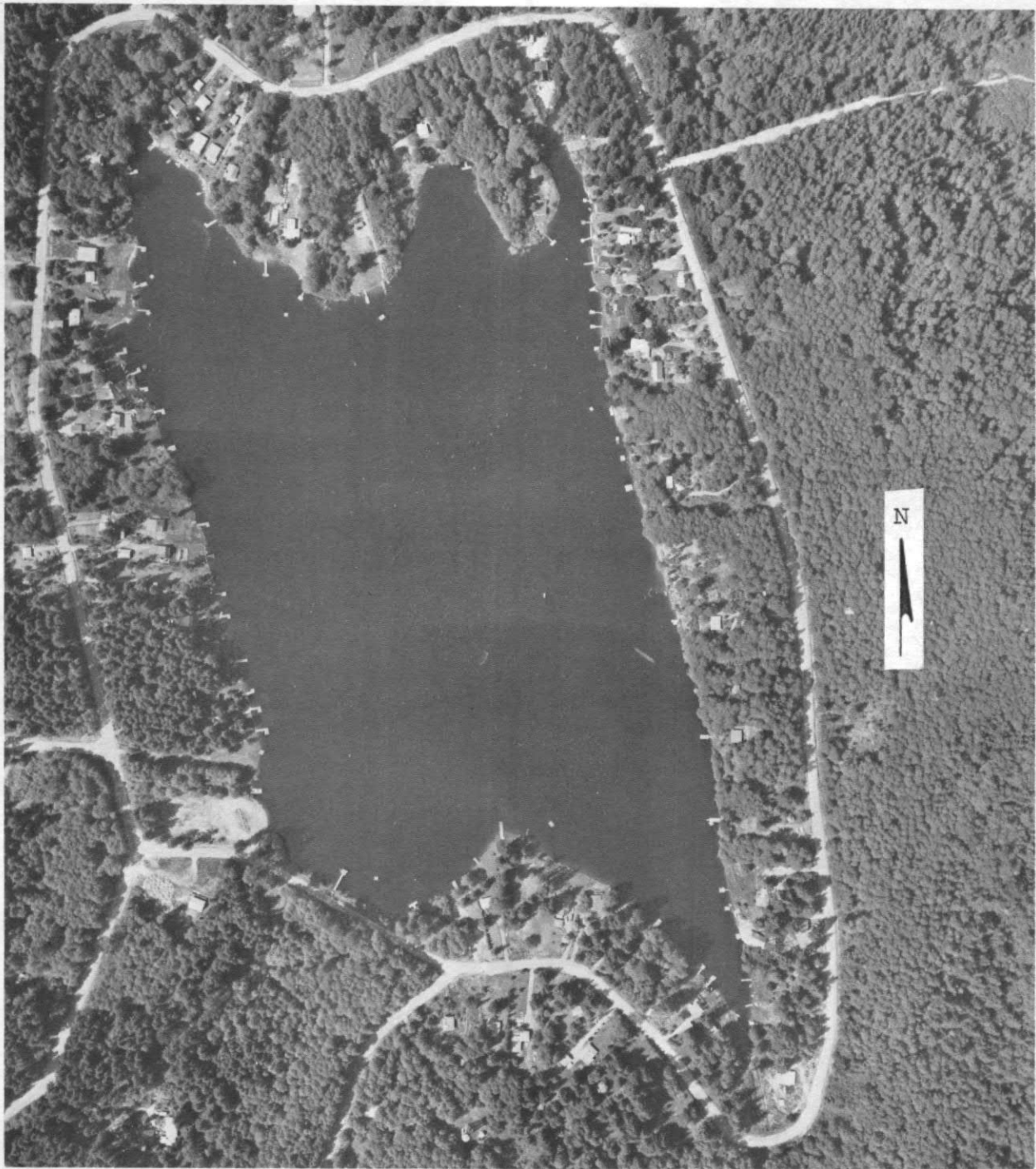
DATE	6/28/73
TIME	1440
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	5
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

ORIGINALLY A NATURAL LAKE BUT HAS BEEN ENLARGED BY A DAM. IN 1973 THE U.S.GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS CONDUCTED ON AUGUST 17, 1973.



Margaret Lake, King County. From U.S. Geological Survey, June 26, 1973.



Margaret Lake, King County. May 17, 1973. Approx. scale 1:4800.

MARIE LAKE

KING COUNTY

LATITUDE 47°34'33" LONGITUDE 121°50'31" T24N-R8E-7
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.30 SQ MI
 ALTITUDE 953. FT
 LAKE AREA 10. ACRES
 LAKE VOLUME 160. ACRE-FT
 MEAN DEPTH 17. FT
 MAXIMUM DEPTH 33. FT
 SHORELINE LENGTH 0.56 MI
 SHORELINE CONFIGURATION 1.3
 DEVELOPMENT OF VOLUME 0.51
 BOTTOM SLOPE 4.5 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIRLE
 OUTFLOW CHANNEL ABSENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 95 %
 LAKE SURFACE 5 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

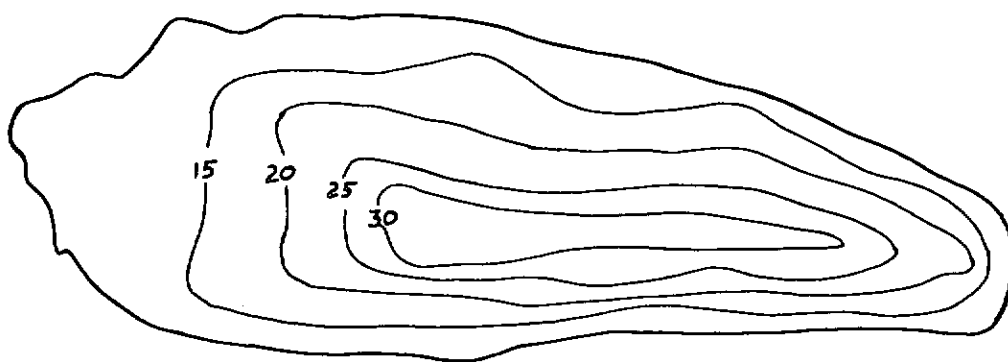
 SAMPLE SITE 1
 DATE 7/12/73
 TIME 930 940
 DEPTH (FT) 3. 25.
 TOTAL NITRATE (N) 0.13 0.50
 TOTAL NITRITE (N) 0.01 0.00
 TOTAL AMMONIA (N) 0.05 0.08
 TOTAL ORGANIC NITROGEN (N) 0.37 0.70
 TOTAL PHOSPHORUS (P) 0.019 0.011
 TOTAL ORTHOPHOSPHATE (P) 0.003 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 22 26
 WATER TEMPERATURE (DEG C) 21.0 6.2
 COLOR (PLATINUM-COBALT UNITS) 55 55
 SECCHI-DISC VISIBILITY (FT) 7
 DISSOLVED OXYGEN 9.2 1.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/12/73
 TIME 1015
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) 1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 2
 FECAL COLIFORM, MEAN (COL./100ML) 1

REMARKS

 THE LAKE IS SURROUNDED BY A FLOATING BOG MAT. THE WATER IS A BROWN COLOR
 AND THE LITTORAL BOTTOM IS MOSTLY MUCK. THE SHORELINE IS COVERED WITH
 WOOD AND LOG DEBRIS.



N



0 400 800 FEET

EXPLANATION

— 20 —

Line of equal
water depth
Interval 5 feet

Marie Lake, King County. From Washington Department of Game, August 26, 1947.



Marie Lake, King County. May 1, 1973. Approx. scale 1:4800.

MARTEN LAKE

KING COUNTY

LATITUDE 47°35'39" LONGITUDE 121°30'31" T24N-R10E-2
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.15 SQ MI
 ALTITUDE 2959. FT
 LAKE AREA 39. ACRES
 LAKE VOLUME 1100. ACRE-FT
 MEAN DEPTH 27. FT
 MAXIMUM DEPTH 61. FT
 SHORELINE LENGTH 1.1 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.44
 BOTTOM SLOPE 4.1 %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 95 %
 LAKE SURFACE 5 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

 SAMPLE SITE 1
 DATE 9/ 3/74
 TIME 1110 1115
 DEPTH (FT) 3. 46.
 TOTAL NITRATE (N) 0.02 0.09
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.07
 TOTAL ORGANIC NITROGEN (N) 0.01 0.00
 TOTAL PHOSPHORUS (P) 0.001 0.003
 TOTAL ORTHOPHOSPHATE (P) 0.001 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 7 8
 WATER TEMPERATURE (DEG C) 18.1 4.7
 COLOR (PLATINUM-COBALT UNITS) -- --
 SECCHI-DISC VISIBILITY (FT) 37
 DISSOLVED OXYGEN 8.8 6.9

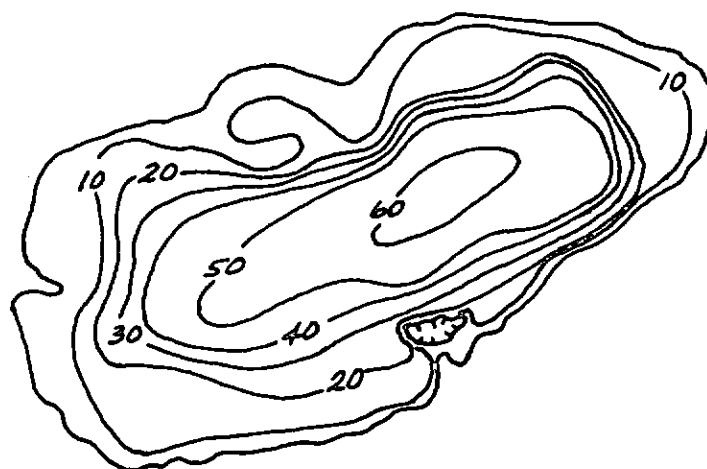
LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE 9/ 5/74
 TIME 1025
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 NO AQUATIC PLANTS WERE OBSERVED.



N



0 500 1000 FEET



EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Marten Lake, King County. From U.S. Geological Survey, September 7, 1974.



Marten Lake, King County. August 21, 1970. Approx. scale 1:12,000.

MASON LAKE

KING COUNTY

LATITUDE 47*25'29" LONGITUDE 121*33'13" T22N-R10E-5
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.26 SQ MI
 ALTITUDE 4180. FT
 LAKE AREA 29. ACRES
 LAKE VOLUME 1400. ACRE-FT
 MEAN DEPTH 48. FT
 MAXIMUM DEPTH 92. FT
 SHORELINE LENGTH 0.91 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.52
 BOTTOM SLOPE 7.2 %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 83 %
 LAKE SURFACE 17 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

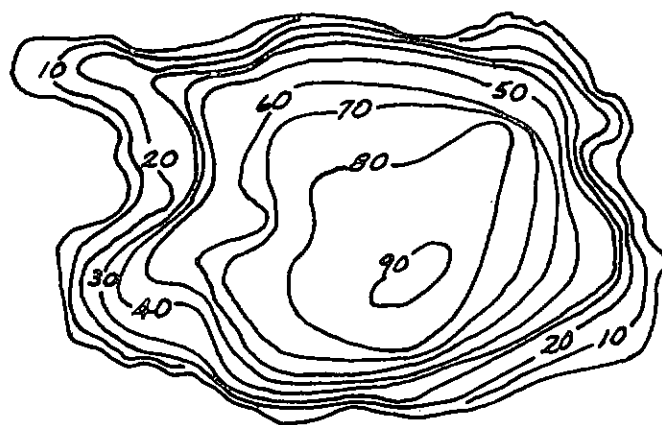
 SAMPLE SITE 1
 DATE 8/28/74
 TIME 1030 1035
 DEPTH (FT) 3. 69.
 TOTAL NITRATE (N) 0.01 0.01
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.03
 TOTAL ORGANIC NITROGEN (N) 0.08 --
 TOTAL PHOSPHORUS (P) 0.002 0.002
 TOTAL ORTHOPHOSPHATE (P) 0.000 0.000
 SPECIFIC CONDUCTANCE (MICROMHOS) 10 10
 WATER TEMPERATURE (DEG C) 16.0 4.1
 COLOR (PLATINUM-COBALT UNITS) 0 0
 SECCHI-DISC VISIBILITY (FT) 49
 DISSOLVED OXYGEN 9.0 9.2

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/28/74
 TIME 1030
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 NO AQUATIC PLANTS WERE OBSERVED.



N



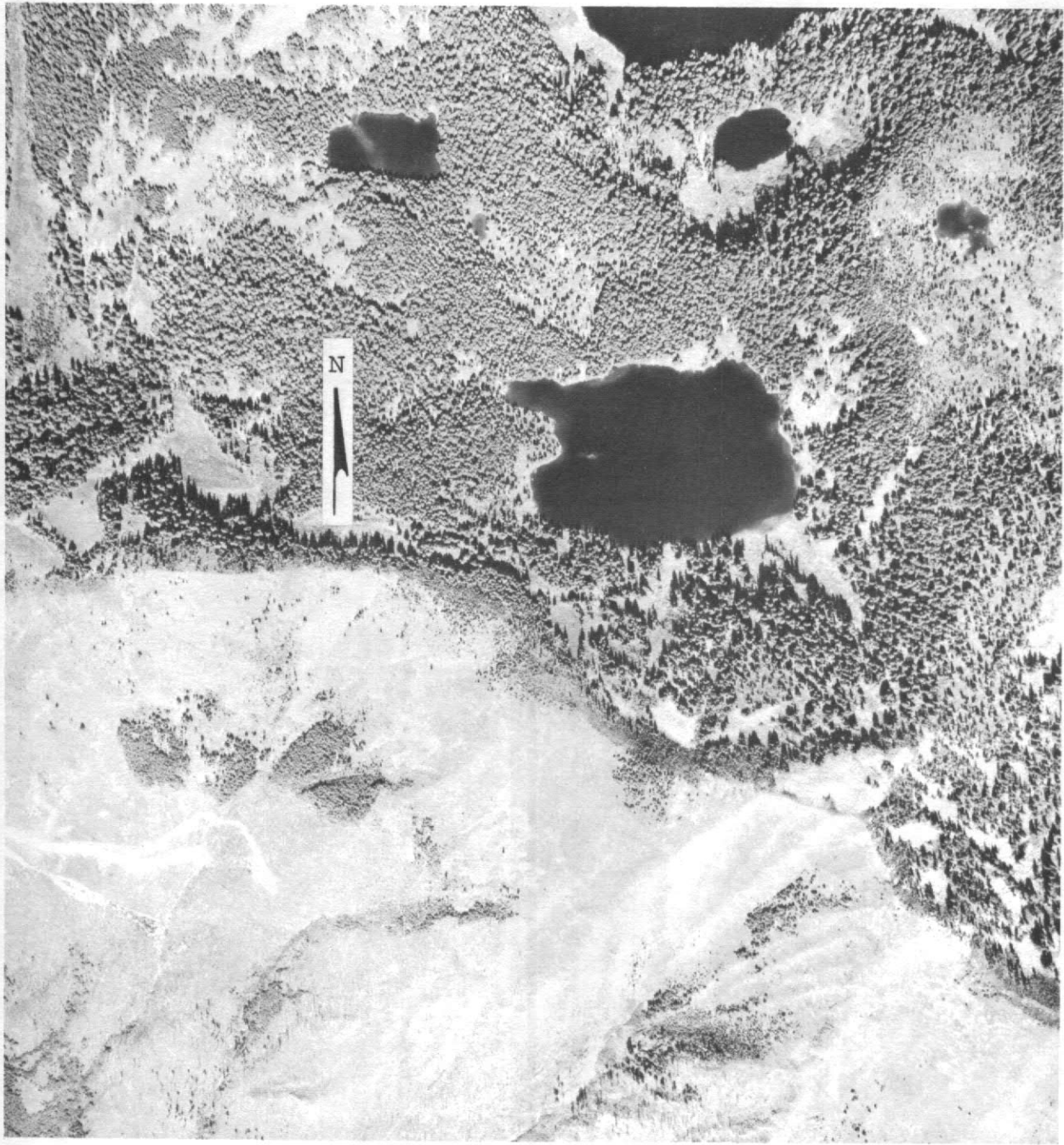
0 500 1000 FEET

EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Mason Lake, King County. From U.S. Geological Survey, September 5, 1974.



Mason Lake, King County. August 12, 1970. Approx. scale 1:12,000.

MCDONALD LAKE

KING COUNTY

LATITUDE 47°26'25" LONGITUDE 122° 1'32" T23N-R6E-17
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.15 SQ MI
ALTITUDE	563. FT
LAKE AREA	18. ACRES
LAKE VOLUME	410. ACRE-FT
MEAN DEPTH	23. FT
MAXIMUM DEPTH	47. FT
SHORELINE LENGTH	0.78 MI
SHORELINE CONFIGURATION	1.3
DEVELOPMENT OF VOLUME	0.49
BOTTOM SLOPE	4.8 %
BASIN GEOLOGY	SED./META.
INFLOW	NONE VISIBLE
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	100 %
NUMBER OF NEARSHORE HOMES	38
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	49 %
AGRICULTURAL	14 %
FOREST OR UNPRODUCTIVE	18 %
LAKE SURFACE	19 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	7/ 6/73	
TIME	1350	1355
DEPTH (FT)	3.	36.
TOTAL NITRATE (N)	0.02	0.07
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.07	0.23
TOTAL ORGANIC NITROGEN (N)	0.02	0.03
TOTAL PHOSPHORUS (P)	0.017	0.022
TOTAL ORTHOPHOSPHATE (P)	0.004	0.014
SPECIFIC CONDUCTANCE (MICROMHOS)	70	75
WATER TEMPERATURE (DEG C)	19.2	5.1
COLOR (PLATINUM-COBALT UNITS)	10	15
SECCHI-DISC VISIBILITY (FT)		6
DISSOLVED OXYGEN	10.4	2.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/ 6/73
TIME	1410
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	10
FECAL COLIFORM, MAXIMUM (COL./100ML)	39
FECAL COLIFORM, MEAN (COL./100ML)	28

REMARKS

THE LAKE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC (COONTAIL). THE
 LITTORAL BOTTOM IS MUCK.



McDonald Lake, King County. Bathymetric map from
U.S. Geological Survey, July 10, 1973.
Aerial photo, April 30, 1970.

MERIDIAN LAKE

KING COUNTY

LATITUDE 47°21'30" LONGITUDE 122° 8'43" T22N-R5E-27
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 1.16 SQ MI
ALTITUDE 370. FT
LAKE AREA 150. ACRES
LAKE VOLUME 6100. ACRE-FT
MEAN DEPTH 41. FT
MAXIMUM DEPTH 90. FT
SHORELINE LENGTH 2.5 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.45
BOTTOM SLOPE 3.1 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 82 %
NUMBER OF NEARSHORE HOMES 157
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 25 %
AGRICULTURAL 55 %
FOREST OR UNPRODUCTIVE 0 %
LAKE SURFACE 20 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

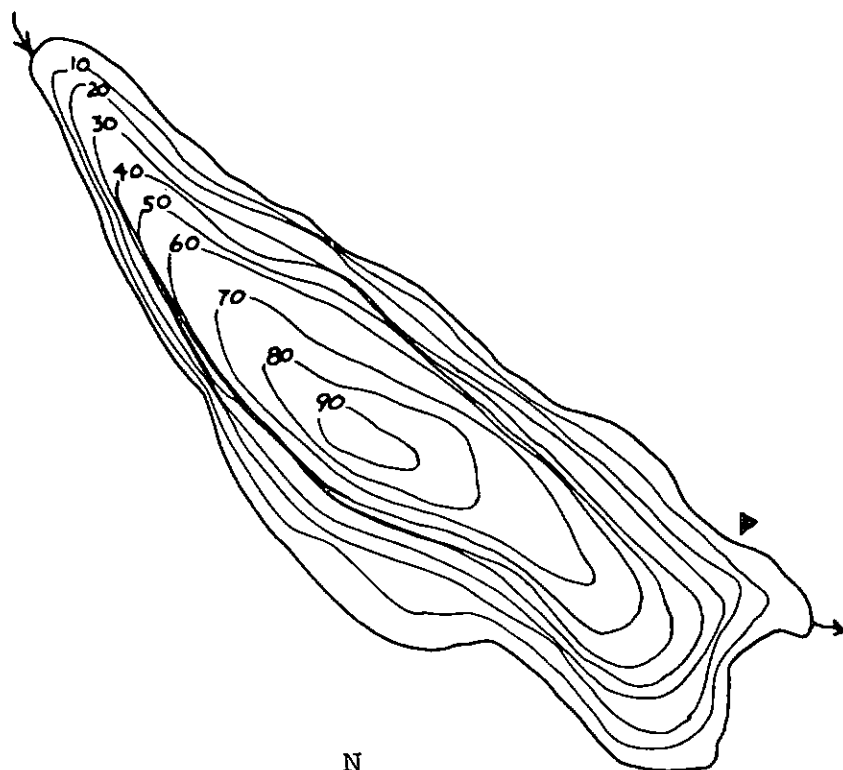
SAMPLE SITE 1
DATE 7/10/73
TIME 930 940
DEPTH (FT) 3. 69.
TOTAL NITRATE (N) 0.01 0.28
TOTAL NITRITE (N) 0.01 0.00
TOTAL AMMONIA (N) 0.02 0.27
TOTAL ORGANIC NITROGEN (N) 0.42 0.21
TOTAL PHOSPHORUS (P) 0.010 0.062
TOTAL ORTHOPHOSPHATE (P) 0.003 0.048
SPECIFIC CONDUCTANCE (MICROMHOS) 85 87
WATER TEMPERATURE (DEG C) 21.0 5.3
COLOR (PLATINUM-COBALT UNITS) 5 20
SECCHI-DISC VISIBILITY (FT) 12
DISSOLVED OXYGEN 9.7 0.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/10/73
TIME 1040
NUMBER OF FECAL COLIFORM SAMPLES 5
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 140
FECAL COLIFORM, MEAN (COL./100ML) 35

REMARKS

A BAND OF SUBMERSED PLANTS(WATER MILFOIL) COVERS THE LITTORAL BOTTOM. A COUNTY PARK IS LOCATED ON THE SOUTH SIDE OF THE LAKE AND THE IN-LAKE RECREATION IS HEAVY IN THE SUMMER. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



N

0 1000 2000 FEET

EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Meridian Lake, King County. From Washington Department of Game, June 16, 1950.



Meridian Lake, King County. June 1, 1970. Approx. scale 1:12,000.

MIRROR LAKE

KING COUNTY

LATITUDE 47°19' 9" LONGITUDE 122°20'18" T21N-R4E-7
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.26 SQ MI
 ALTITUDE 320. FT
 LAKE AREA 20. ACRES
 LAKE VOLUME 240. ACRE-FT
 MEAN DEPTH 12. FT
 MAXIMUM DEPTH 27. FT
 SHORELINE LENGTH 0.91 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.45
 BOTTOM SLOPE 2.6 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 65 %
 NUMBER OF NEARSHORE HOMES 40
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 65 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 23 %
 LAKE SURFACE 12 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

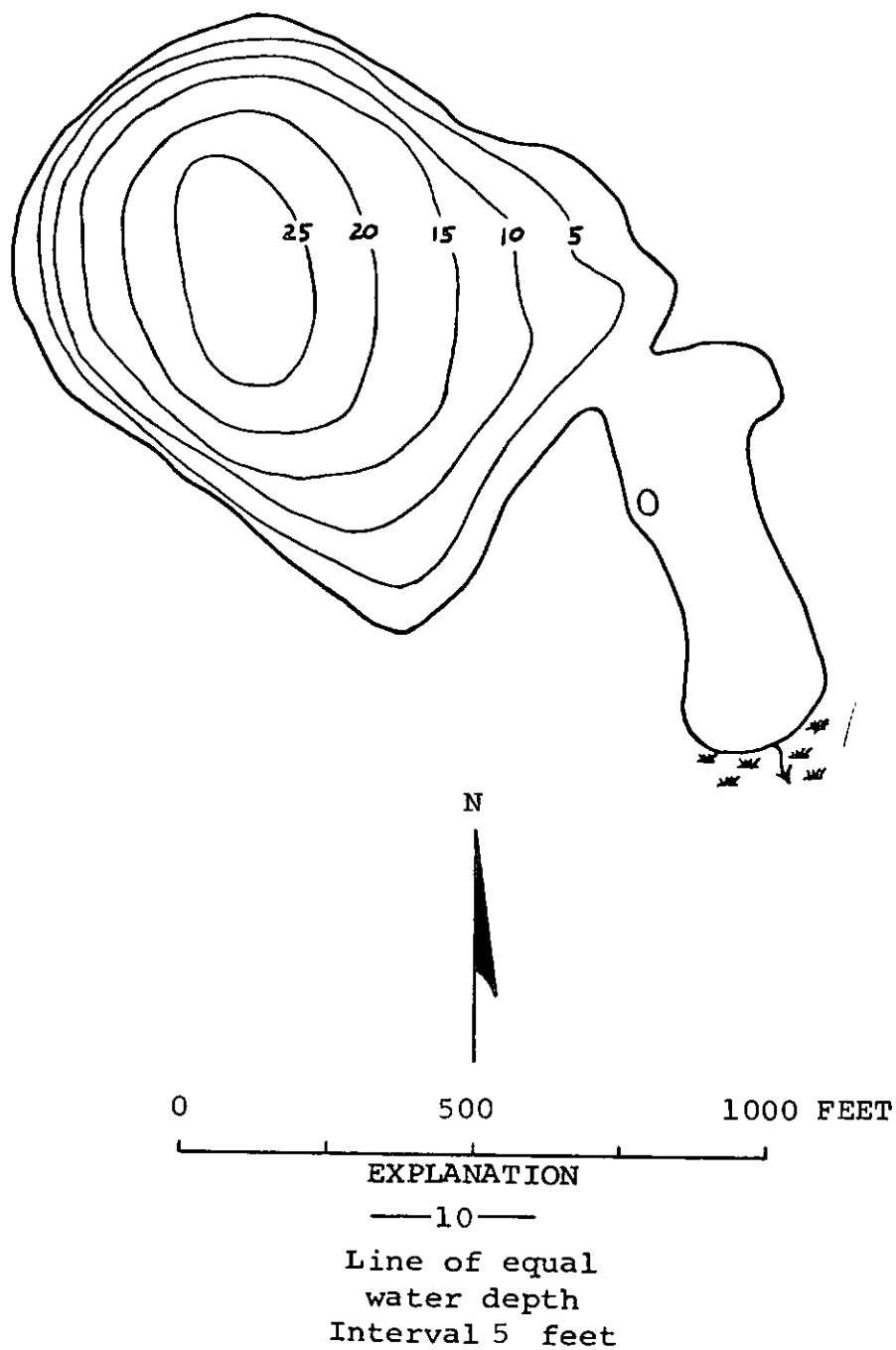
 SAMPLE SITE 1
 DATE 7/19/73
 TIME 1530 1540
 DEPTH (FT) 3. 18.
 TOTAL NITRATE (N) 0.00 0.01
 TOTAL NITRITE (N) 0.01 0.00
 TOTAL AMMONIA (N) 0.05 0.07
 TOTAL ORGANIC NITROGEN (N) 0.25 0.30
 TOTAL PHOSPHORUS (P) 0.013 0.011
 TOTAL ORTHOPHOSPHATE (P) 0.007 0.005
 SPECIFIC CONDUCTANCE (MICROMHOS) 69 75
 WATER TEMPERATURE (DEG C) 24.5 14.2
 COLOR (PLATINUM-COBALT UNITS) 10 20
 SECCHI-DISC VISIBILITY (FT) 8
 DISSOLVED OXYGEN 8.6 1.5

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 7/19/73
 TIME 1530
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 20
 FECAL COLIFORM, MAXIMUM (COL./100ML) 63
 FECAL COLIFORM, MEAN (COL./100ML) 35

REMARKS

 EMERSED AND SUBMERSED PLANTS WERE ABUNDANT IN THE SHALLOW ARM OF THE LAKE.



Mirror Lake, King County. From Washington Department of Game, February 17, 1953.



Mirror Lake, King County. April 30, 1973. Approx. scale 1:4800.

MONEYSMITH LAKE

KING COUNTY

LATITUDE 47°17'27" LONGITUDE 122° 7'15" T21N-R5E-24
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.43 SQ MI
ALTITUDE 415. FT
LAKE AREA 26. ACRES
LAKE VOLUME 68. ACRE-FT
MEAN DEPTH 3. FT
MAXIMUM DEPTH 9. FT
SHORELINE LENGTH 1.7 MI
SHORELINE CONFIGURATION 2.4
DEVELOPMENT OF VOLUME 0.30
BOTTOM SLOPE 0.76 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIRLE
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 9 %
NUMBER OF NEARSHORE HOMES 6
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 25 %
FOREST OR UNPRODUCTIVE 66 %
LAKE SURFACE 9 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

1

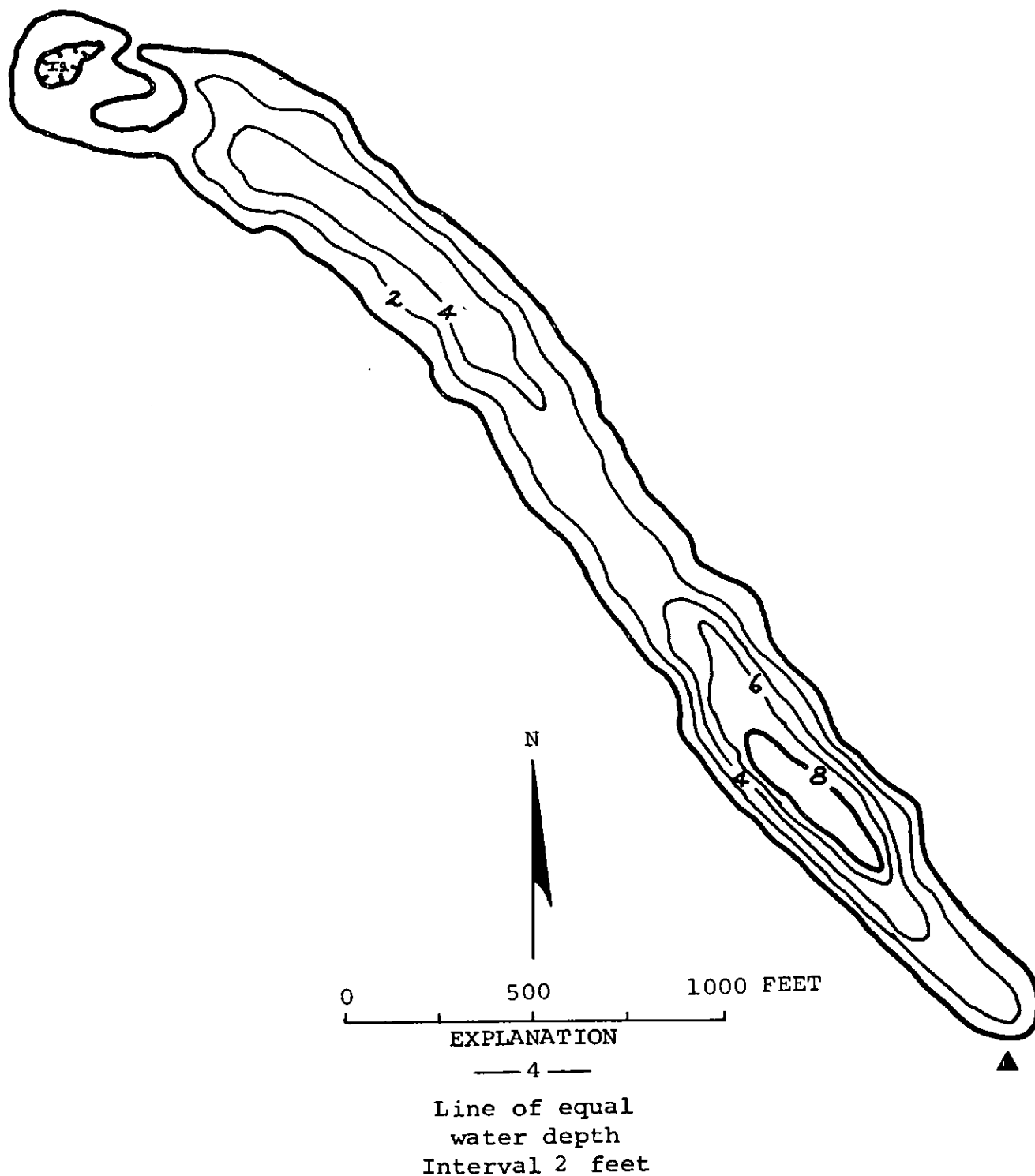
DATE 9/14/74
TIME 1155 1200
DEPTH (FT) 3. 5.
TOTAL NITRATE (N) 0.00 0.07
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.14 0.18
TOTAL ORGANIC NITROGEN (N) 0.63 0.93
TOTAL PHOSPHORUS (P) 0.036 0.048
TOTAL ORTHOPHOSPHATE (P) 0.015 0.015
SPECIFIC CONDUCTANCE (MICROMHOS) 31 32
WATER TEMPERATURE (DEG C) 19.2 19.0
COLOR (PLATINUM-CORALT UNITS) 50 50
SECCHI-DISC VISIRILITY (FT) 3
DISSOLVED OXYGEN 5.7 2.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 76-100 %

DATE 9/ 4/74
TIME 1210
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) 12
FECAL COLIFORM, MEAN (COL./100ML) 6

REMARKS

THE LAKE HAD A HEAVY COVER OF BOTH EMERSED AND SUBMERSED PLANTS. THE LITTORAL BOTTOM IS MUCK. THE SHORELINE IS COVERED WITH LOGS AND WOOD DEBRIS. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Moneysmith Lake, King County. From U.S. Geological Survey, May 9, 1974.



Moneysmith Lake, King County. June 1, 1970. Approx. scale 1:12,000.

MOOLOCK LAKE

KING COUNTY

LATITUDE 47°33'23" LONGITUDE 121°39' 6" T24N-R9E-15
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.21 SQ MI
ALTITUDE	3903. FT
LAKE AREA	41. ACRES
LAKE VOLUME	2400. ACRE-FT
MEAN DEPTH	57. FT
MAXIMUM DEPTH	150. FT
SHORELINE LENGTH	1.2 MI
SHORELINE CONFIGURATION	1.3
DEVELOPMENT OF VOLUME	0.37
BOTTOM SLOPE	10. %
BASIN GEOLOGY	IGNEOUS
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	0 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	70 %
LAKE SURFACE	30 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1
DATE	7/11/73
TIME	1515 1525
DEPTH (FT)	3. 105.
TOTAL NITRATE (N)	0.07 0.08
TOTAL NITRITE (N)	0.00 0.01
TOTAL AMMONIA (N)	0.05 0.05
TOTAL ORGANIC NITROGEN (N)	0.00 0.02
TOTAL PHOSPHORUS (P)	0.003 0.13
TOTAL ORTHOPHOSPHATE (P)	0.001 0.001
SPECIFIC CONDUCTANCE (MICROMHOS)	9 9
WATER TEMPERATURE (DEG C)	14.9 4.4
COLOR (PLATINUM-COBALT UNITS)	0 0
SECCHI-DISC VISIBILITY (FT)	40
DISSOLVED OXYGEN	9.2 8.8

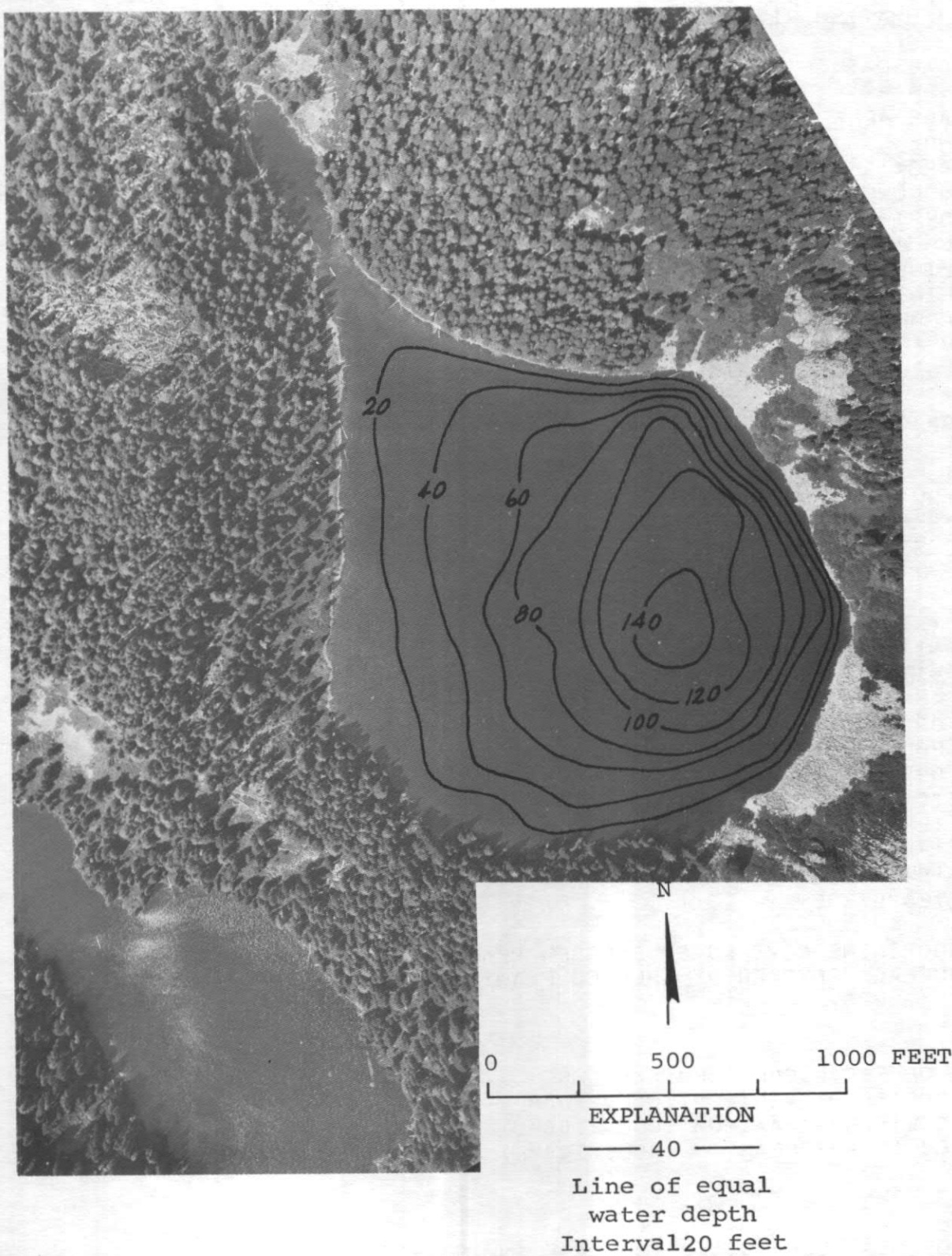
LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE	7/11/73
TIME	1600
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

NO AQUATIC PLANTS WERE OBSERVED.



Moolock Lake, King County. Bathymetric map from
U.S. Geological Survey, September 4, 1973.
Aerial photo, August 3, 1973.

MORTON LAKE

KING COUNTY

LATITUDE 47°19' 7" LONGITUDE 122° 4'51" T21N-R6E-7
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.40 SQ MI
ALTITUDE 520. FT
LAKE AREA 68. ACRES
LAKE VOLUME 990. ACRE-FT
MEAN DEPTH 15. FT
MAXIMUM DEPTH 23. FT
SHORELINE LENGTH 1.5 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.63
BOTTOM SLOPE 1.2 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 100 %
NUMBER OF NEARSHORE HOMES 77
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 16 %
AGRICULTURAL 3 %
FOREST OR UNPRODUCTIVE 54 %
LAKE SURFACE 27 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

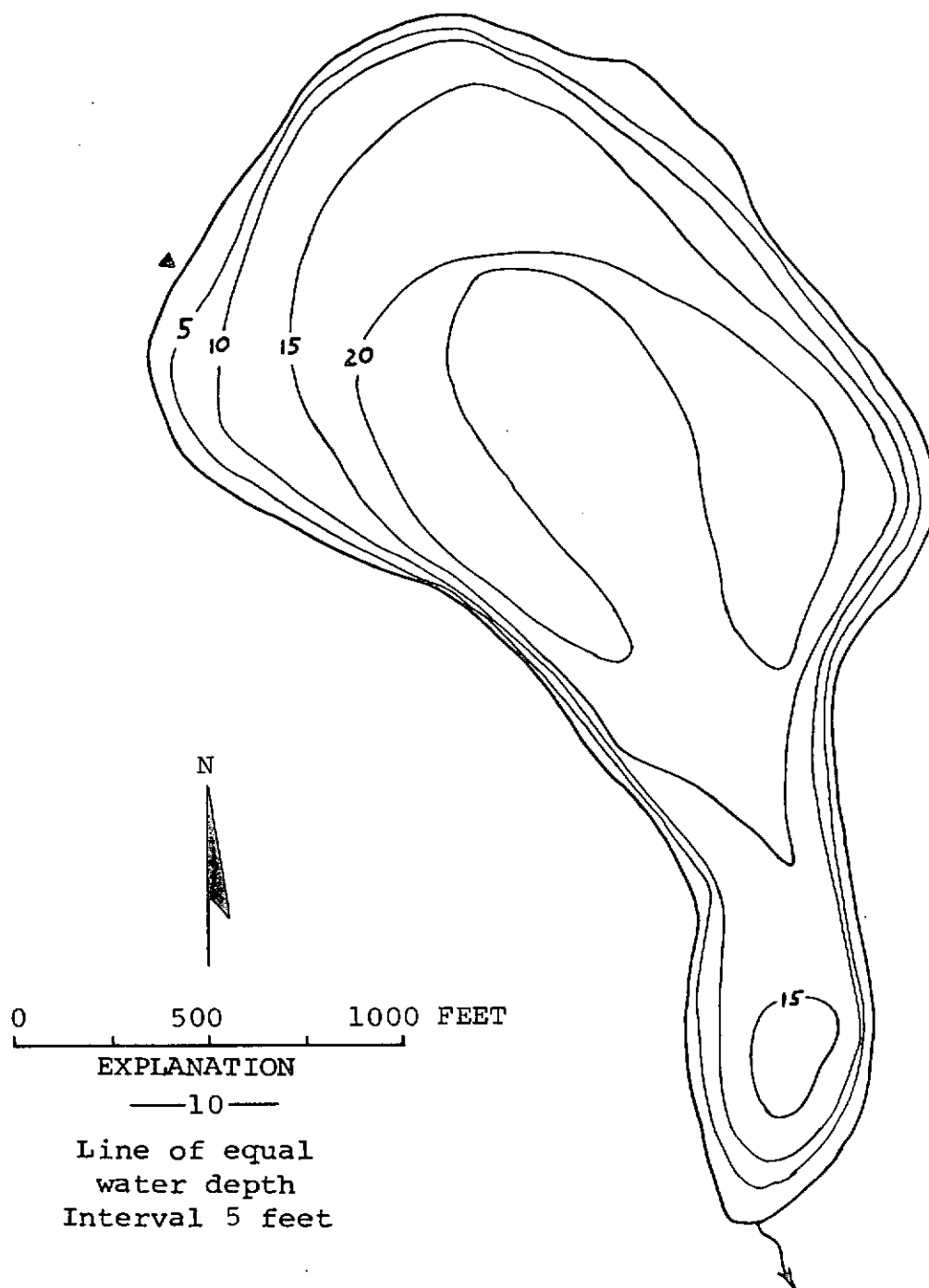
DATE 7/ 9/73
TIME 1230 1235
DEPTH (FT) 3. 18.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.08 0.19
TOTAL ORGANIC NITROGEN (N) 0.36 0.32
TOTAL PHOSPHORUS (P) 0.018 0.024
TOTAL ORTHOPHOSPHATE (P) 0.007 0.006
SPECIFIC CONDUCTANCE (MICROMHOS) 39 46
WATER TEMPERATURE (DEG C) 21.0 14.8
COLOR (PLATINUM-COBALT UNITS) 0 20
SECCHI-DISC VISIBILITY (FT) 8
DISSOLVED OXYGEN 9.3 0.9

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/ 9/73
TIME 1310
NUMBER OF FECAL COLIFORM SAMPLES 4
FECAL COLIFORM, MINIMUM (COL./100ML) 3
FECAL COLIFORM, MAXIMUM (COL./100ML) 20
FECAL COLIFORM, MEAN (COL./100ML) 9

REMARKS

METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Morton Lake, King County. From Washington Department of Game, June 10, 1953.



Morton Lake, King County. April 30, 1973. Approx. scale 1:4800.

NADEAU LAKE

KING COUNTY

LATITUDE 47°33' 2" LONGITUDE 121°39'18" T24N-R9E-22
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.19 SQ MI
ALTITUDE	3722. FT
LAKE AREA	18. ACRES
LAKE VOLUME	590. ACRE-FT
MEAN DEPTH	32. FT
MAXIMUM DEPTH	77. FT
SHORELINE LENGTH	0.89 MI
SHORELINE CONFIGURATION	1.5
DEVELOPMENT OF VOLUME	0.42
BOTTOM SLOPE	7.6 %
BASIN GEOLOGY	SED./META.
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	0 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	85 %
LAKE SURFACE	15 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1
DATE	7/11/73
TIME	1420 1430
DEPTH (FT)	3. 59.
TOTAL NITRATE (N)	0.01 0.06
TOTAL NITRITE (N)	0.01 0.00
TOTAL AMMONIA (N)	0.05 0.07
TOTAL ORGANIC NITROGEN (N)	0.05 0.04
TOTAL PHOSPHORUS (P)	0.004 0.008
TOTAL ORTHOPHOSPHATE (P)	0.002 0.002
SPECIFIC CONDUCTANCE (MICROMHOS)	9 13
WATER TEMPERATURE (DEG C)	14.9 4.0
COLOR (PLATINUM-COBALT UNITS)	0 10
SECCHI-DISC VISIBILITY (FT)	22
DISSOLVED OXYGEN	9.0 5.2

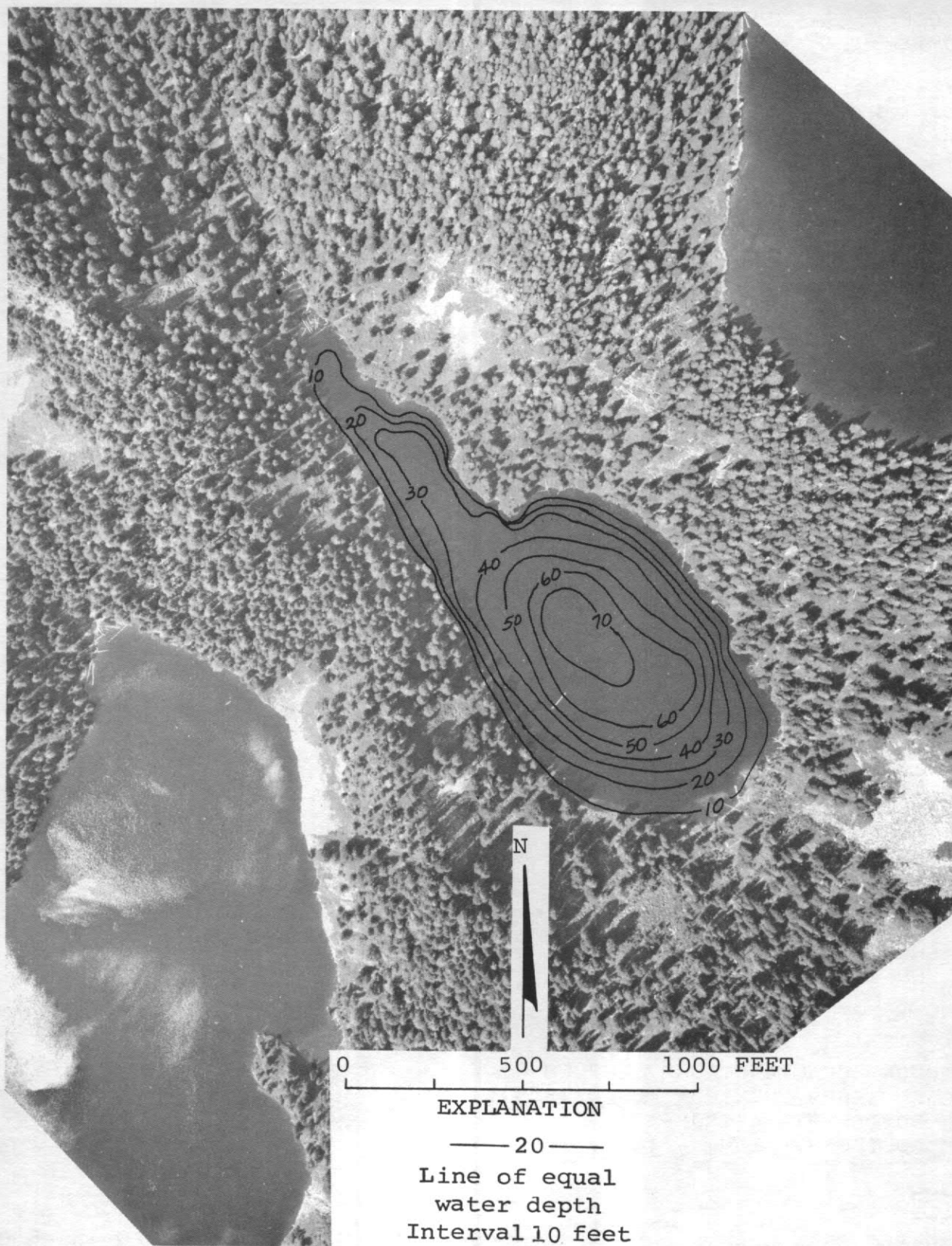
LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE	7/11/73
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

NO AQUATIC PLANTS WERE OBSERVED. LOGS AND WOOD DEBRIS COVERED THE SHORE-LINE.



Nadeau Lake, King County. Bathymetric map from
U.S. Geological Survey, September 4, 1973.
Aerial photo, August 3, 1973.

NEILSON (HOLM) LAKE

KING COUNTY

LATITUDE 47°18' 4" LONGITUDE 122° 7'19" T21N-R5E-14
 GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.29 SQ MI
ALTITUDE	395. FT
LAKE AREA	19. ACRES
LAKE VOLUME	340. ACRE-FT
MEAN DEPTH	18. FT
MAXIMUM DEPTH	31. FT
SHORELINE LENGTH	0.86 MI
SHORELINE CONFIGURATION	1.4
DEVELOPMENT OF VOLUME	0.57
BOTTOM SLOPE	3.0 %
BASIN GEOLOGY	SED./META.
INFLOW	NONE VISIBLE
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	39 %
NUMBER OF NEARSHORE HOMES	16
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	5 %
AGRICULTURAL	16 %
FOREST OR UNPRODUCTIVE	69 %
LAKE SURFACE	10 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

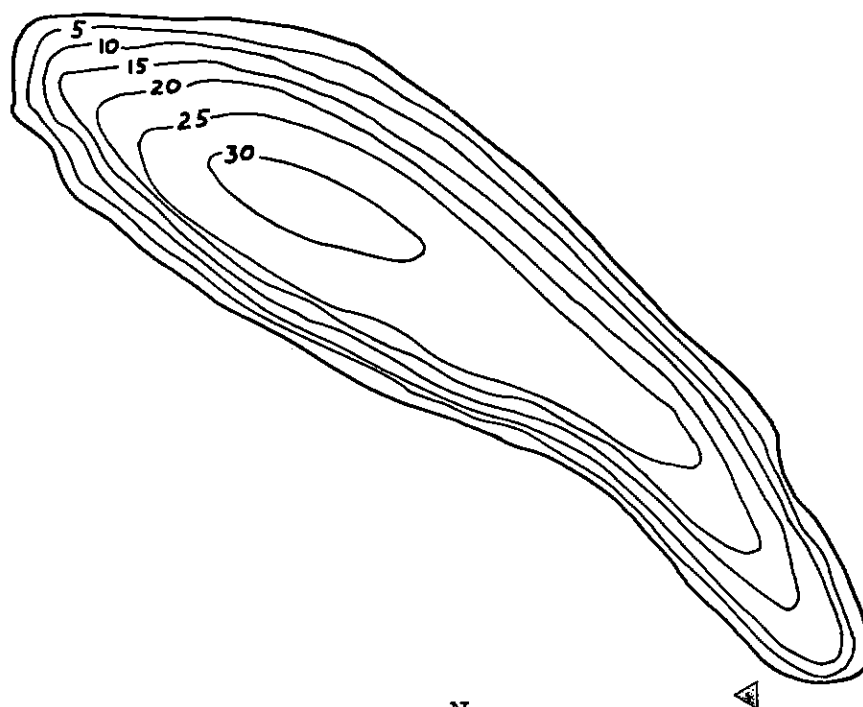
SAMPLE SITE	1
DATE	7/10/73
TIME	1130 1140
DEPTH (FT)	3. 22.
TOTAL NITRATE (N)	0.01 0.09
TOTAL NITRITE (N)	0.01 0.01
TOTAL AMMONIA (N)	0.17 0.30
TOTAL ORGANIC NITROGEN (N)	0.41 0.28
TOTAL PHOSPHORUS (P)	0.024 0.024
TOTAL ORTHOPHOSPHATE (P)	0.009 0.010
SPECIFIC CONDUCTANCE (MICROMHOS)	27 30
WATER TEMPERATURE (DEG C)	22.1 5.7
COLOR (PLATINUM-COBALT UNITS)	35 50
SECCHI-DISC VISIBILITY (FT)	5
DISSOLVED OXYGEN	8.7 0.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/10/73
TIME	1200
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	3
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE NORTHWEST SHORE OF THE LAKE IS MARSHY AND COVERED WITH EMERSED AQUATIC PLANTS. THE LITTORAL BOTTOM IS MOSTLY MUCK. LAND CLEARING WAS IN PROGRESS ON THE EAST SIDE OF THE LAKE.



N

0 500 1000 FEET

EXPLANATION

—10—

Line of equal
water depth
Interval 5 feet

Neilson (Holm) Lake, King County. From Washington
Department of Game, September 18, 1951.



Neilson (Holm) Lake, King County. April 30, 1973. Approx. scale 1:4800.

NORTH LAKE

KING COUNTY

LATITUDE 47°18' 0" LONGITUDE 122°17'30" T21N-R4E-15
 PUGET SOUND BASIN

PHYSICAL DATA

CULTURAL DATA

DRAINAGE AREA	0.76 SQ MI	RESIDENTIAL DEVELOPMENT	57 %
ALTITUDE	392. FT	NUMBER OF NEARSHORE HOMES	58
LAKE AREA	56. ACRES	LAND USE IN DRAINAGE BASIN	
LAKE VOLUME	770. ACRE-FT	RESIDENTIAL URBAN	2 %
MEAN DEPTH	14. FT	RESIDENTIAL SUBURBAN	10 %
MAXIMUM DEPTH	34. FT	AGRICULTURAL	3 %
SHORELINE LENGTH	1.7 MI	FOREST OR UNPRODUCTIVE	73 %
SHORELINE CONFIGURATION	1.6	LAKE SURFACE	12 %
DEVELOPMENT OF VOLUME	0.40		
BOTTOM SLOPE	1.9 %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

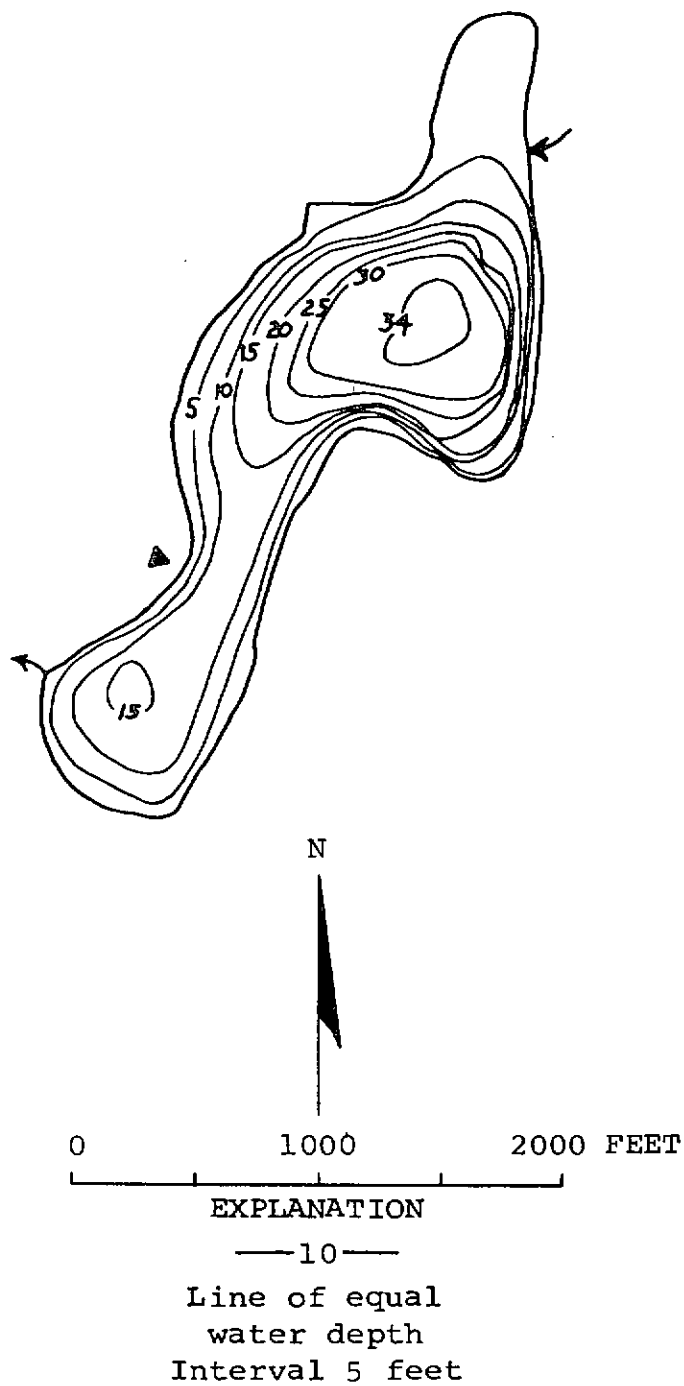
SAMPLE SITE	1	
DATE	7/ 5/73	
TIME	1415	1420
DEPTH (FT)	3.	32.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.08	1.7
TOTAL ORGANIC NITROGEN (N)	0.07	0.10
TOTAL PHOSPHORUS (P)	0.012	0.092
DISSOLVED ORTHOPHOSPHATE (P)	0.004	0.049
SPECIFIC CONDUCTANCE (MICROMHOS)	55	66
WATER TEMPERATURE (DEG C)	20.7	7.7
COLOR (PLATINUM-COBALT UNITS)	25	55
SECCHI-DISC VISIBILITY (FT)	10	
DISSOLVED OXYGEN	8.4	1.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	0- 25 %

DATE	7/ 5/73
TIME	1425
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	6
FECAL COLIFORM, MAXIMUM (COL./100ML)	28
FECAL COLIFORM, MEAN (COL./100ML)	15

REMARKS

EMERSED PLANTS COVERED ABOUT 15 PERCENT OF THE LAKE SURFACE. MOST OF THE PLANTS WERE FOUND ON THE SOUTH AND NORTH ENDS OF THE LAKE. THE LITTORAL BOTTOM IS MOSTLY MUCK. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. IN 1973 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 9, 1973.



North Lake, King County. From Washington Department of Game, March 7, 1950.



North Lake, King County. May 17, 1973. Approx. scale 1:4800.

NUMBER TWELVE LAKE

KING COUNTY

LATITUDE 47°19'27" LONGITUDE 121°58'39" T21N-R6E-12
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.52 SQ MI
ALTITUDE 718. FT
LAKE AREA 44. ACRES
LAKE VOLUME 570. ACRE-FT
MEAN DEPTH 13. FT
MAXIMUM DEPTH 28. FT
SHORELINE LENGTH 1.2 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.46
BOTTOM SLOPE 1.8 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 75 %
NUMBER OF NEARSHORE HOMES 34
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 4 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 83 %
LAKE SURFACE 13 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

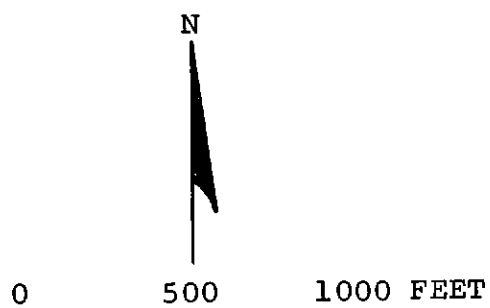
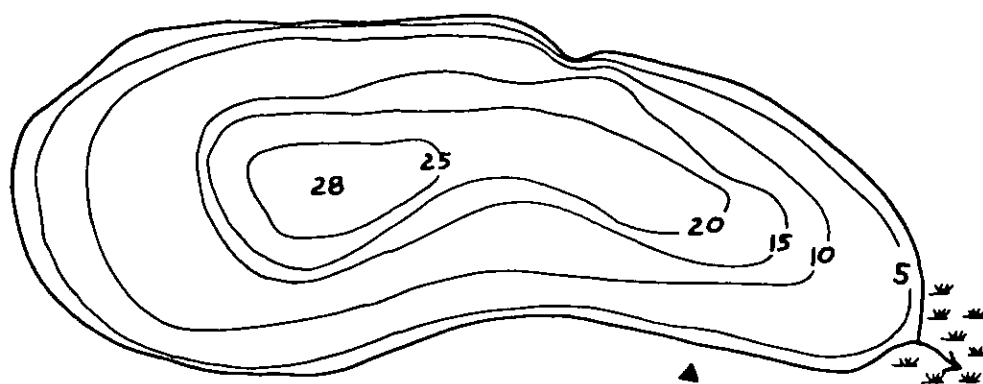
DATE 8/ 7/73
TIME 1640 1645
DEPTH (FT) 3. 18.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.10 0.46
TOTAL ORGANIC NITROGEN (N) 0.24 0.30
TOTAL PHOSPHORUS (P) 0.011 0.041
TOTAL ORTHOPHOSPHATE (P) 0.008 0.020
SPECIFIC CONDUCTANCE (MICROMHOS) 47 61
WATER TEMPERATURE (DEG C) 21.9 13.1
COLOR (PLATINUM-COBALT UNITS) 15 70
SECCHI-DISC VISIBILITY (FT) 7
DISSOLVED OXYGEN 8.2 1.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 7/73
TIME 1650
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 8
FECAL COLIFORM, MAXIMUM (COL./100ML) 29
FECAL COLIFORM, MEAN (COL./100ML) 18

REMARKS

THE LAKE HAD A HEAVY GROWTH OF SUBMERSED PLANTS (ELODEA AND WATER MILFOIL). THE LITTORAL BOTTOM IS MOSTLY MUCK.



EXPLANATION

—10—

Line of equal
water depth
Interval 5 feet

Number Twelve Lake, King County. From Washington
Department of Game, July 1, 1949.



Number Twelve Lake, King County. April 30, 1973. Approx. scale 1:4800.

OTTER (SPRING) LAKE

KING COUNTY

LATITUDE 47°25'56" LONGITUDE 122° 5' 7" T23N-R6E-31
CEDAR RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.70 SQ MI
ALTITUDE 495. FT
LAKE AREA 69. ACRES
LAKE VOLUME 1300. ACRE-FT
MEAN DEPTH 19. FT
MAXIMUM DEPTH 32. FT
SHORELINE LENGTH 1.5 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.59
BOTTOM SLOPE 1.6 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 61 %
NUMBER OF NEARSHORE HOMES 36
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 8 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 77 %
LAKE SURFACE 15 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

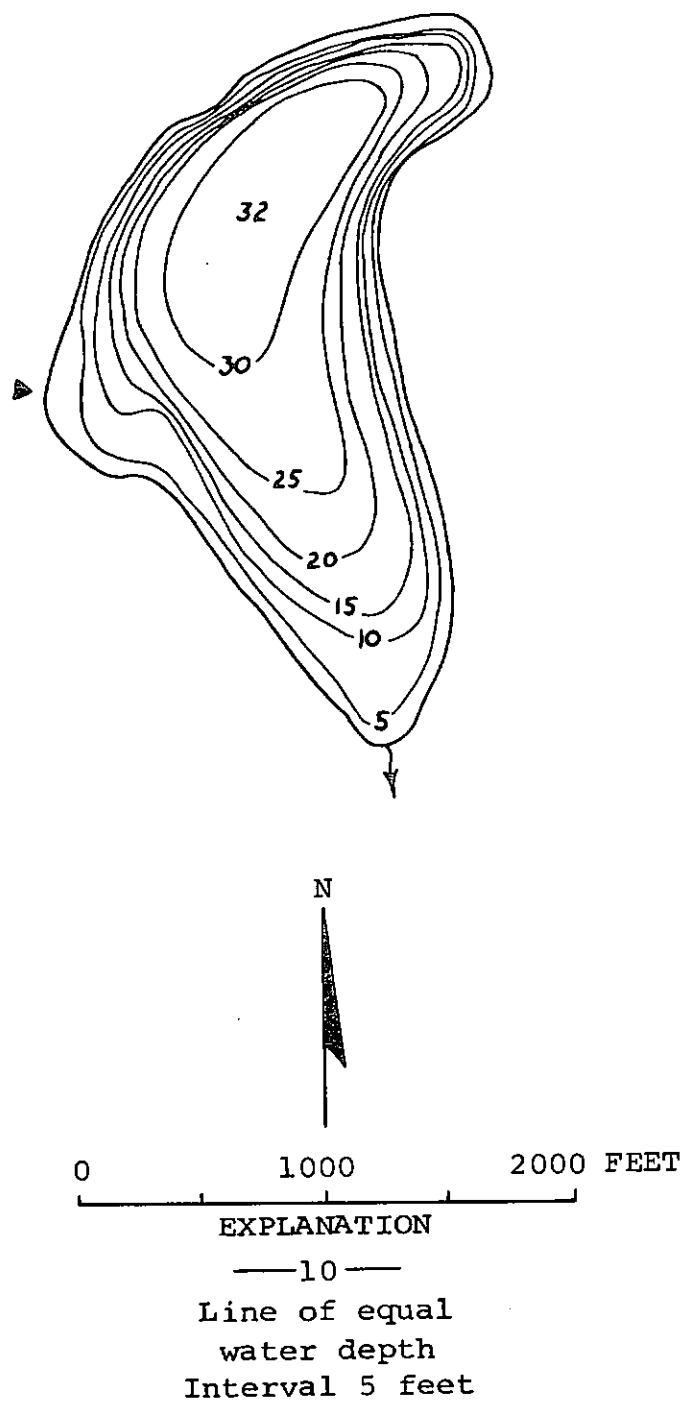
SAMPLE SITE 1
DATE 9/ 6/74
TIME 1210 1215
DEPTH (FT) 3. 21.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.05 0.26
TOTAL ORGANIC NITROGEN (N) 0.34 0.40
TOTAL PHOSPHORUS (P) 0.004 0.040
TOTAL ORTHOPHOSPHATE (P) 0.003 0.018
SPECIFIC CONDUCTANCE (MICROMHOS) 58 68
WATER TEMPERATURE (DEG C) 21.1 10.3
COLOR (PLATINUM-COBALT UNITS) 10 30
SECCHI-DISC VISIBILITY (FT) 10
DISSOLVED OXYGEN 8.7 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/ 5/73
TIME 1400
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 14
FECAL COLIFORM, MAXIMUM (COL./100ML) 17
FECAL COLIFORM, MEAN (COL./100ML) 15

REMARKS

MOST OF THE UNDEVELOPED SHORELINE ADJOINS MARSHLAND. METRO OF SEATTLE
STUDIED THE LAKE IN 1971-72.



Otter (Spring) Lake, King County. From Washington
Department of Game, June 27, 1950.



Otter (Spring) Lake, King County. April 30, 1973. Approx. scale 1:4800.

PANTHER LAKE

KING COUNTY

LATITUDE 47°25'26" LONGITUDE 122°11'24" T22N-R5E-5
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.30 SQ MI
ALTITUDE 440. FT
LAKE AREA 31. ACRES
LAKE VOLUME 100. ACRE-FT
MEAN DEPTH 3. FT
MAXIMUM DEPTH 7. FT
SHORELINE LENGTH 1.1 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.47
BOTTOM SLOPE 0.54 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 36 %
NUMBER OF NEARSHORE HOMES 18
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 13 %
AGRICULTURAL 43 %
FOREST OR UNPRODUCTIVE 28 %
LAKE SURFACE 16 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

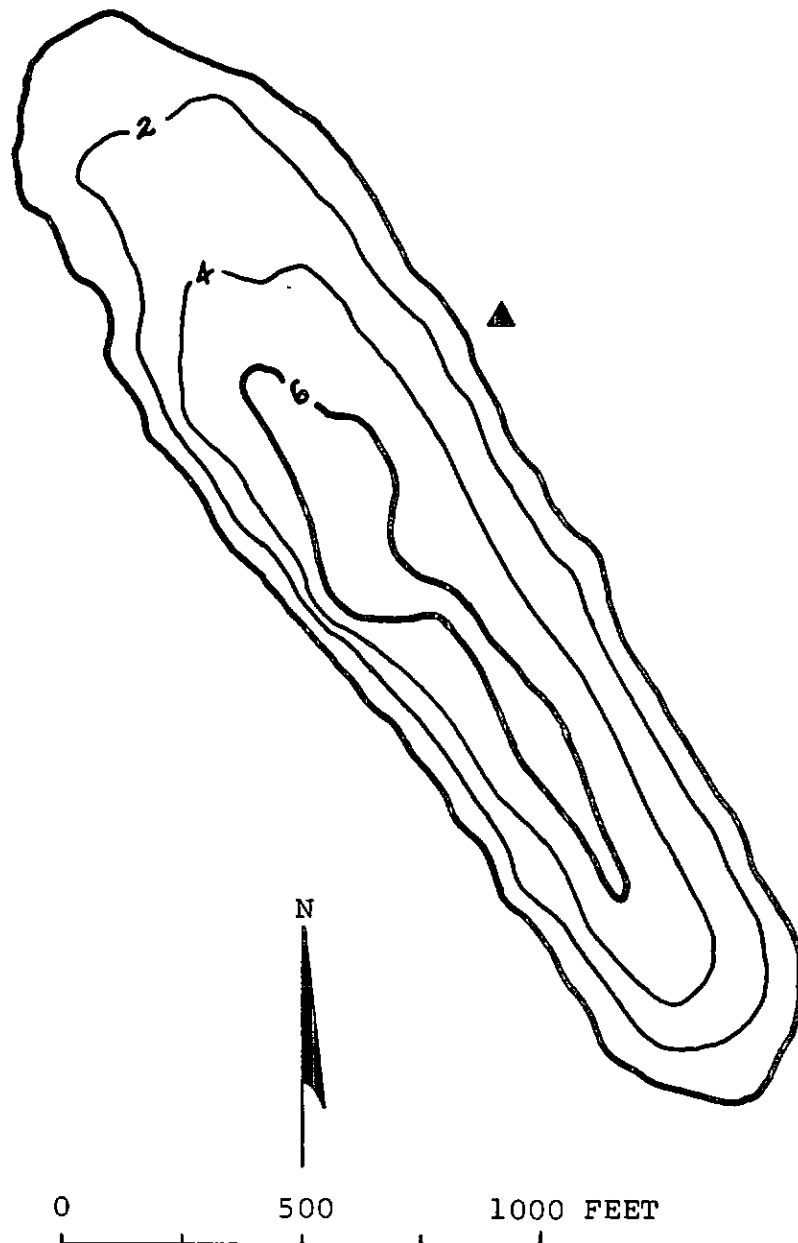
SAMPLE SITE 1
DATE 7/20/73
TIME 1230 1240
DEPTH (FT) 3. 4.
TOTAL NITRATE (N) 0.01 --
TOTAL NITRITE (N) 0.01 --
TOTAL AMMONIA (N) 0.08 --
TOTAL ORGANIC NITROGEN (N) 0.56 --
TOTAL PHOSPHORUS (P) 0.021 --
TOTAL ORTHOPHOSPHATE (P) 0.006 --
SPECIFIC CONDUCTANCE (MICROMHOS) 61 --
WATER TEMPERATURE (DEG C) 21.8 21.8
COLOR (PLATINUM-COBALT UNITS) 60 --
SECCHI-DISC VISIBILITY (FT) 4
DISSOLVED OXYGEN 7.1 7.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 76-100 %

DATE 7/20/73
TIME 1230
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 21
FECAL COLIFORM, MAXIMUM (COL./100ML) 33
FECAL COLIFORM, MEAN (COL./100ML) 27

REMARKS

THE SURFACE AND BOTTOM OF THE LAKE WERE HEAVILY COVERED WITH MACROPHYTES.
THE LITTORAL BOTTOM IS MUCK. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



EXPLANATION

—6—
Line of equal
water depth
Interval 4 feet

Panther Lake, King County. From U.S. Geological Survey, May 9, 1974.



Panther Lake, King County. April 30, 1973. Approx. scale 1:4800.

PARADISE LAKE

KING COUNTY

LATITUDE 47°46'21" LONGITUDE 122° 3'53" T26N-R6E-5
 SAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	4.13 SQ MI
ALTITUDE	256. FT
LAKE AREA	18. ACRES
LAKE VOLUME	300. ACRE-FT
MEAN DEPTH	17. FT
MAXIMUM DEPTH	28. FT
SHORELINE LENGTH	0.76 MI
SHORELINE CONFIGURATION	1.3
DEVELOPMENT OF VOLUME	0.59
BOTTOM SLOPE	2.8 %
BASIN GEOLOGY	SED./META.
INFLOW	PERENNIAL
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	1 %
AGRICULTURAL	4 %
FOREST OR UNPRODUCTIVE	94 %
LAKE SURFACE	1 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

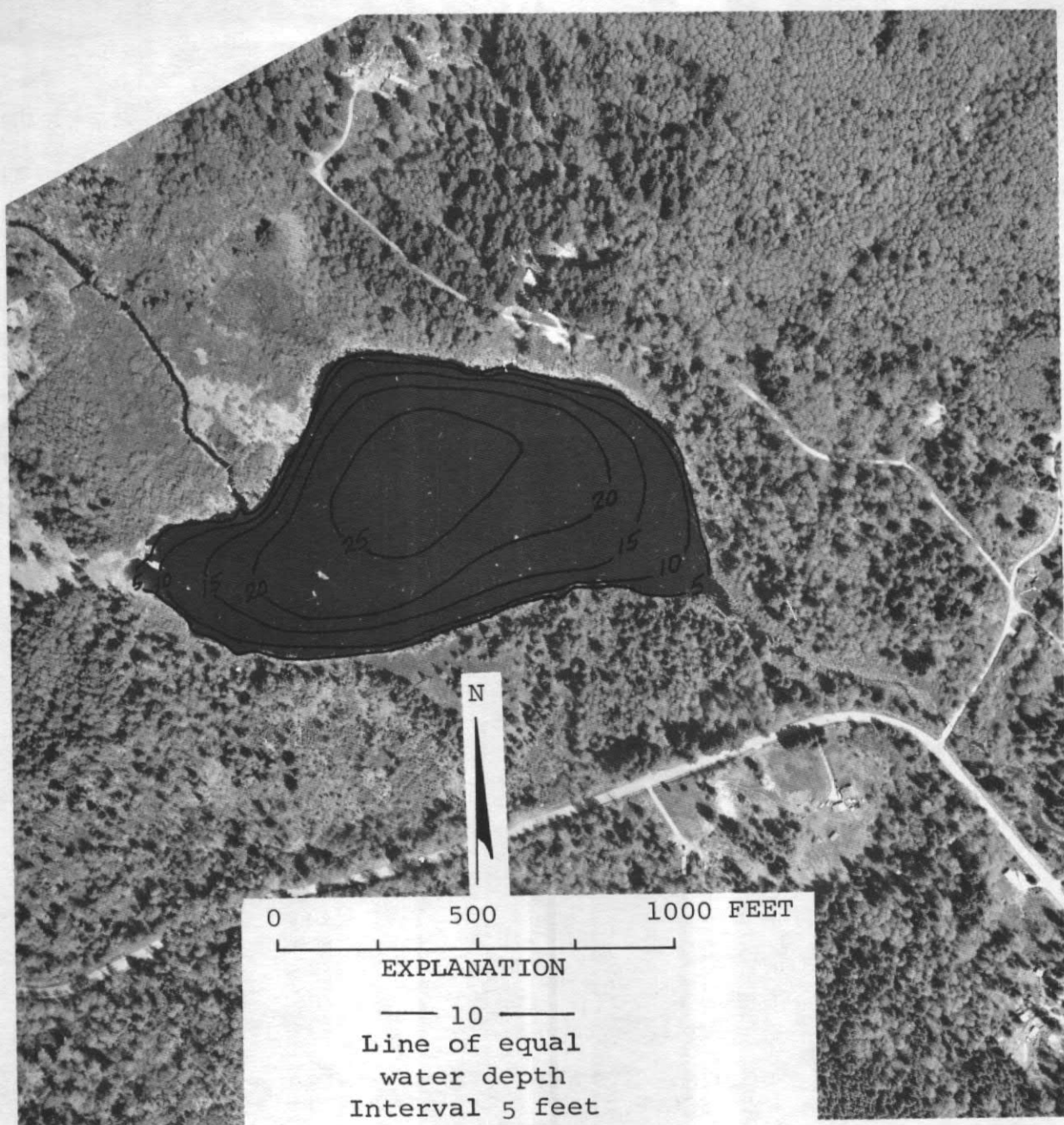
SAMPLE SITE	1
DATE	8/ 3/73
TIME	1340 1345
DEPTH (FT)	3. 18.
TOTAL NITRATE (N)	0.03 0.01
TOTAL NITRITE (N)	0.01 0.01
TOTAL AMMONIA (N)	0.12 0.39
TOTAL ORGANIC NITROGEN (N)	0.21 0.06
TOTAL PHOSPHORUS (P)	0.020 0.10
TOTAL ORTHOPHOSPHATE (P)	0.013 0.055
SPECIFIC CONDUCTANCE (MICROMHOS)	93 88
WATER TEMPERATURE (DEG C)	20.1 9.4
COLOR (PLATINUM-COBALT UNITS)	20 50
SECCHI-DISC VISIRILITY (FT)	4
DISSOLVED OXYGEN	10.6 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	8/ 3/73
TIME	1345
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LAKE HAS A LARGE DRAINAGE AREA AND INFLOW-OUTFLOW VOLUME FOR ITS SIZE. THE WATER IS A BROWN TEA-COLOR AND THE LITTORAL BOTTOM IS MUCK. AN ALGAL BLOOM WAS OBSERVED.



Paradise Lake, King County. Bathymetric map from
U.S. Geological Survey, July 11, 1973.
Aerial photo, May 1, 1973.

PHANTOM LAKE

KING COUNTY

LATITUDE 47°35'27" LONGITUDE 122° 7'31" T24N-R5E-2
SAMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

DRAINAGE AREA	1.94 SQ MI	RESIDENTIAL DEVELOPMENT	61 %
ALTITUDE	240. FT	NUMBER OF NEARSHORE HOMES	30
LAKE AREA	67. ACRES	LAND USE IN DRAINAGE BASIN	
LAKE VOLUME	1400. ACRE-FT	RESIDENTIAL URBAN	47 %
MEAN DEPTH	21. FT	RESIDENTIAL SUBURBAN	16 %
MAXIMUM DEPTH	45. FT	AGRICULTURAL	18 %
SHORELINE LENGTH	1.4 MI	FOREST OR UNPRODUCTIVE	14 %
SHORELINE CONFIGURATION	1.2	LAKE SURFACE	5 %
DEVELOPMENT OF VOLUME	0.46		
BOTTOM SLOPE	2.3 %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

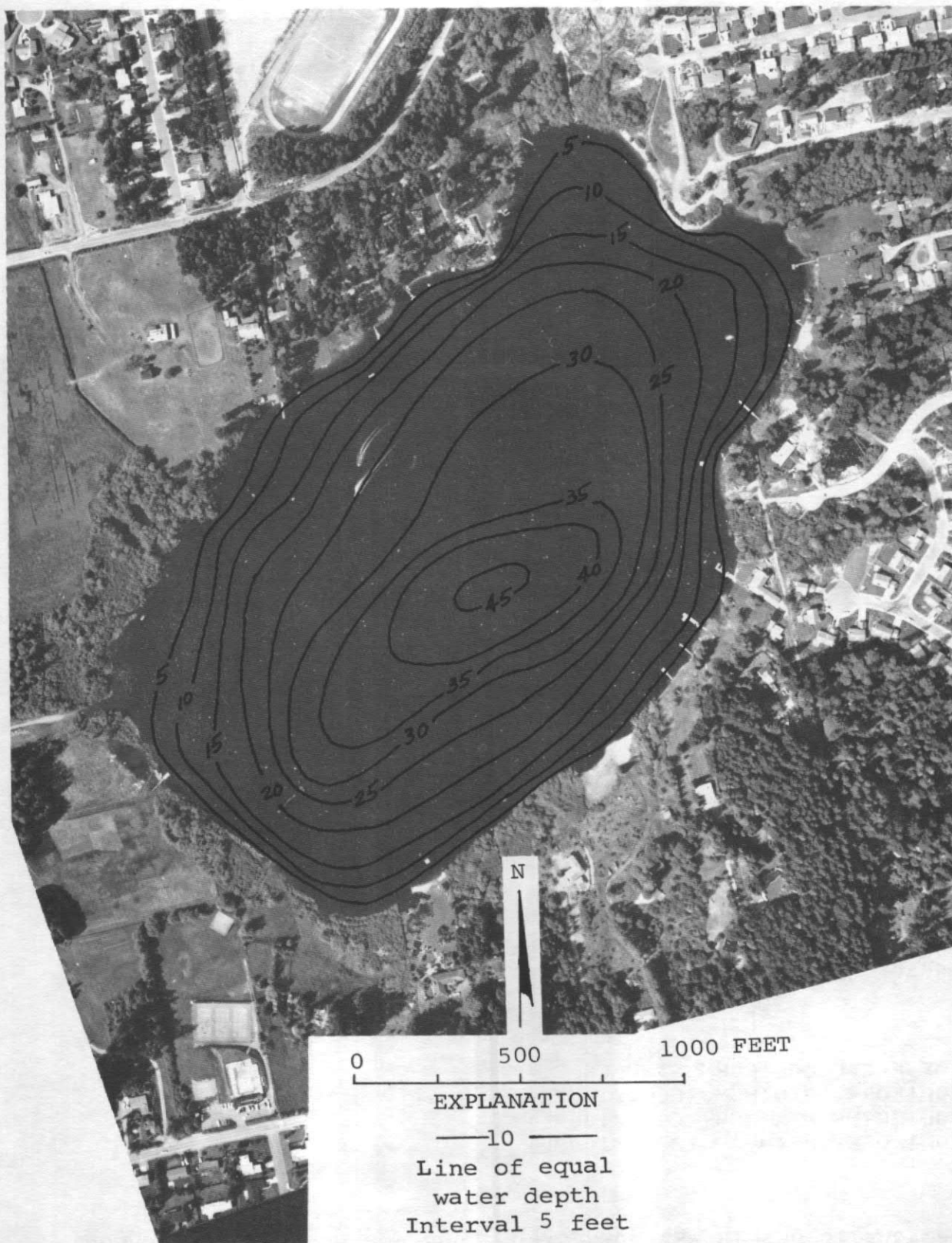
SAMPLE SITE	1
DATE	7/16/73
TIME	1515 1520
DEPTH (FT)	3. 30.
TOTAL NITRATE (N)	0.01 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.04 0.44
TOTAL ORGANIC NITROGEN (N)	0.25 0.66
TOTAL PHOSPHORUS (P)	0.014 0.54
TOTAL ORTHOPHOSPHATE (P)	0.006 0.42
SPECIFIC CONDUCTANCE (MICROMHOS)	99 110
WATER TEMPERATURE (DEG C)	25.1 8.0
COLOR (PLATINUM-COBALT UNITS)	20 45
SECCHI-DISC VISIBILITY (FT)	11
DISSOLVED OXYGEN	9.2 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/16/73
TIME	1525
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	11
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

AN URRAN LAKE LOCATED NEAR BELLEVUE. THE LAKE HAS A LARGE DRAINAGE AREA IN RELATION TO THE SIZE OF THE LAKE. THE LITTORAL BOTTOM IS MOSTLY MUCK.



Phantom Lake, King County. Bathymetric map from
U.S. Geological Survey, July 12, 1973.
Aerial photo, May 13, 1973.

PHILIPPA LAKE

KING COUNTY

LATITUDE 47°36'50" LONGITUDE 121°37' 8" T25N-R9E-35
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.49 SQ MI
 ALTITUDE 3346. FT
 LAKE AREA 120. ACRES
 LAKE VOLUME 21000. ACRE-FT
 MEAN DEPTH 180. FT
 MAXIMUM DEPTH 340. FT
 SHORELINE LENGTH 1.9 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.53
 BOTTOM SLOPE 13. %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 87 %
 LAKE SURFACE 13 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

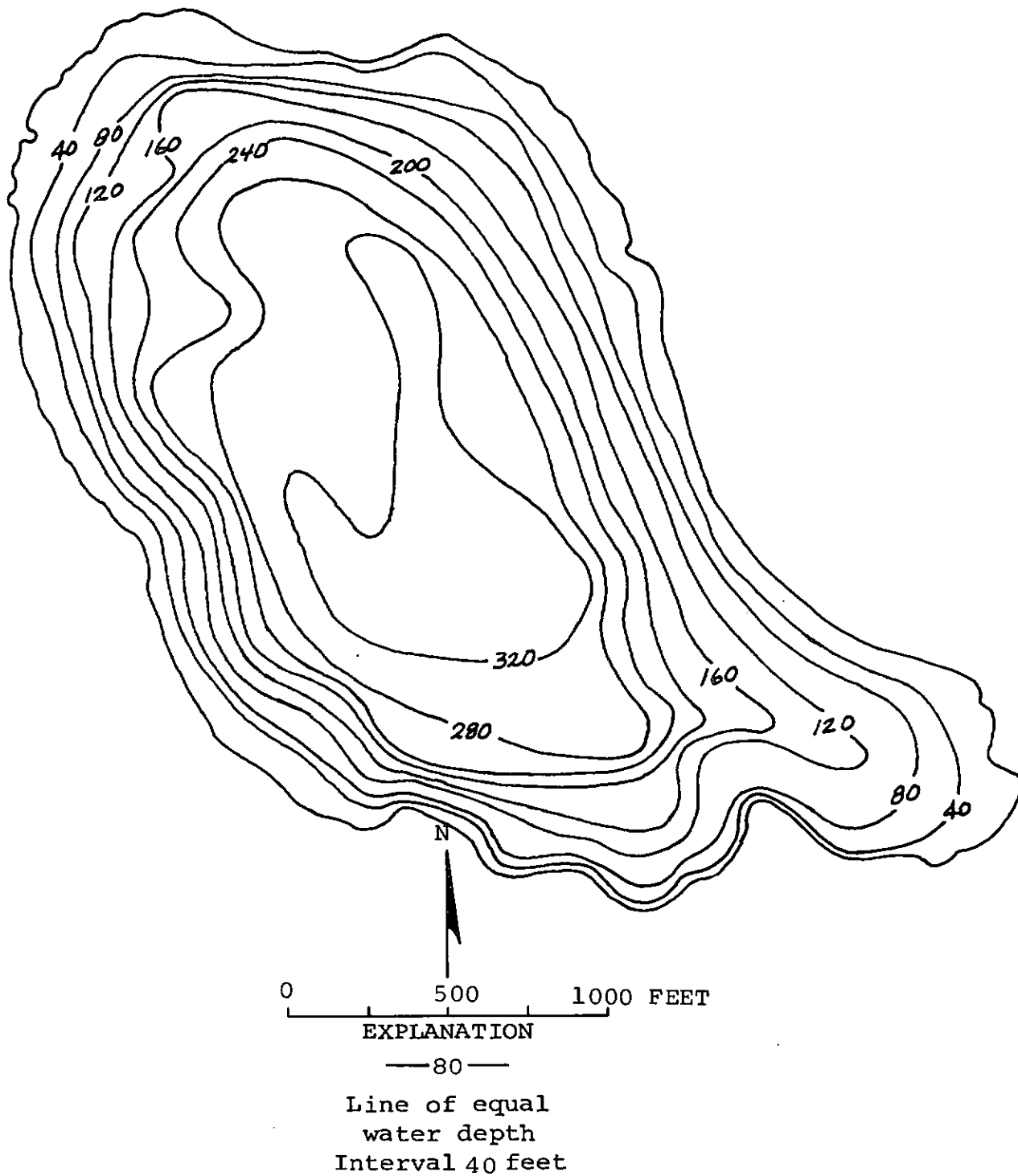
 SAMPLE SITE 1
 DATE 9/ 3/74
 TIME 1240 1245
 DEPTH (FT) 3. 190.
 TOTAL NITRATE (N) 0.02 0.10
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.04 0.07
 TOTAL ORGANIC NITROGEN (N) -- --
 TOTAL PHOSPHORUS (P) 0.000 0.000
 TOTAL ORTHOPHOSPHATE (P) 0.000 0.000
 SPECIFIC CONDUCTANCE (MICROMHOS) 9 10
 WATER TEMPERATURE (DEG C) 13.3 3.8
 COLOR (PLATINUM-COBALT UNITS) 0 0
 SECCHI-DISC VISIBILITY (FT) 66
 DISSOLVED OXYGEN 9.5 10.1

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

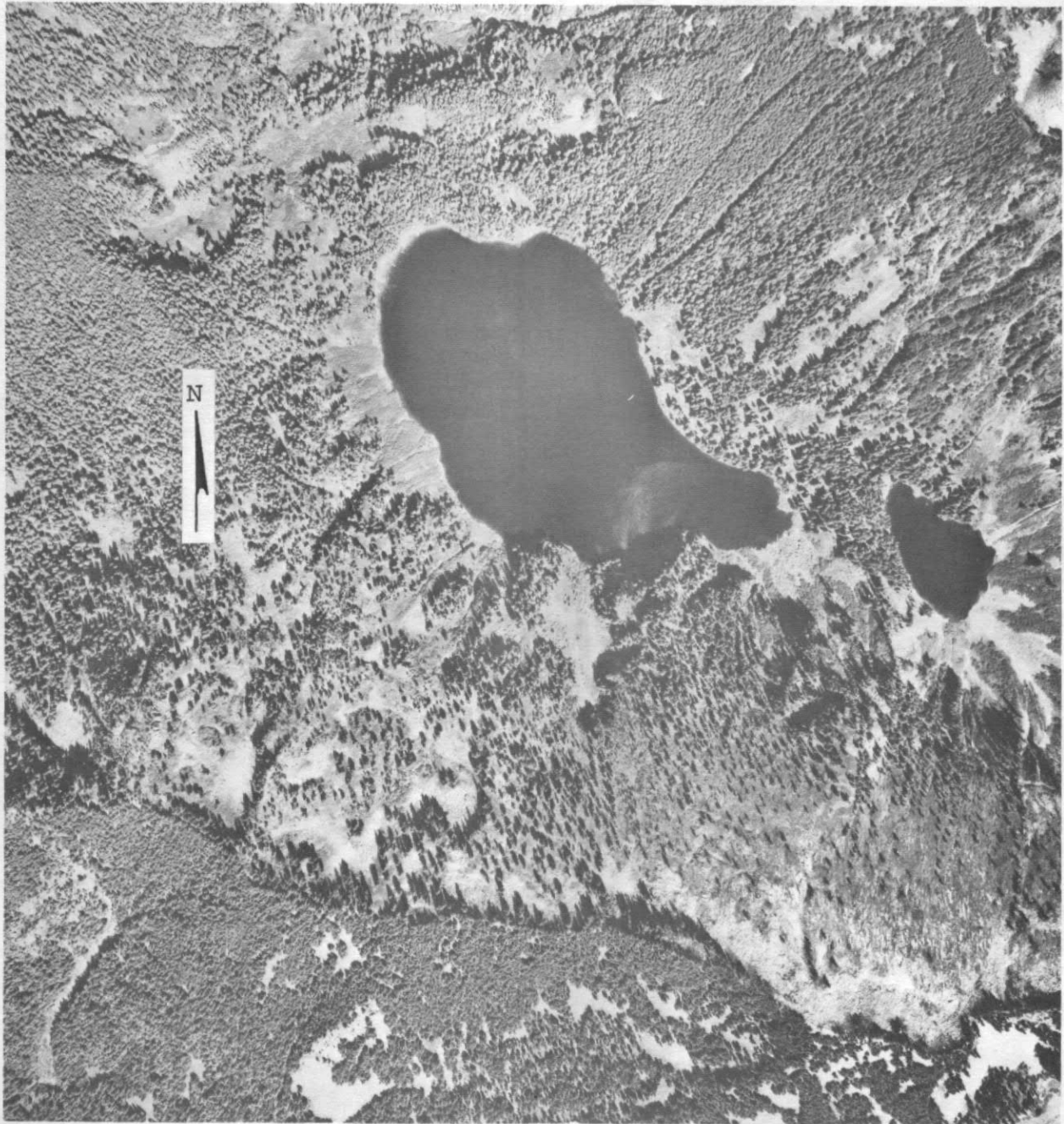
DATE 9/ 3/74
 TIME 1150
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 VERY FEW AQUATIC PLANTS WERE OBSERVED. LOGS AND WOOD DEBRIS COVER THE SHORELINE.



Philippa Lake, King County.
From U.S. Geological Survey, September 6, 1974.



Philippa Lake, King County. August 11, 1970. Approx. scale 1:15,000.

PINE LAKE

KING COUNTY

LATITUDE 47°35'10" LONGITUDE 122° 3' 5" T24N-R6E-9
SAMMAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 1.04 SQ MI
ALTITUDE 390. FT
LAKE AREA 86. ACRES
LAKE VOLUME 1700. ACRE-FT
MEAN DEPTH 20. FT
MAXIMUM DEPTH 39. FT
SHORELINE LENGTH 2.4 MI
SHORELINE CONFIGURATION 1.8
DEVELOPMENT OF VOLUME 0.51
BOTTOM SLOPE 1.8 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 93 %
NUMBER OF NEARSHORE HOMES 96
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 9 %
AGRICULTURAL 35 %
FOREST OR UNPRODUCTIVE 43 %
LAKE SURFACE 13 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

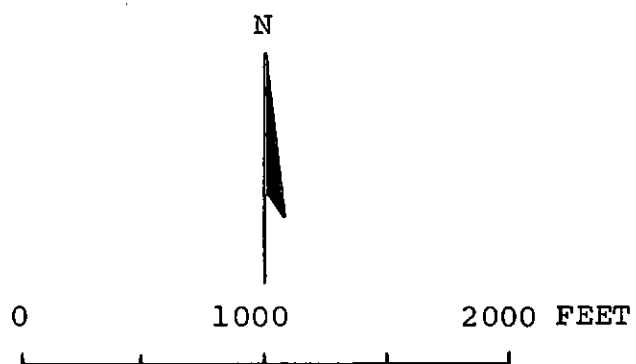
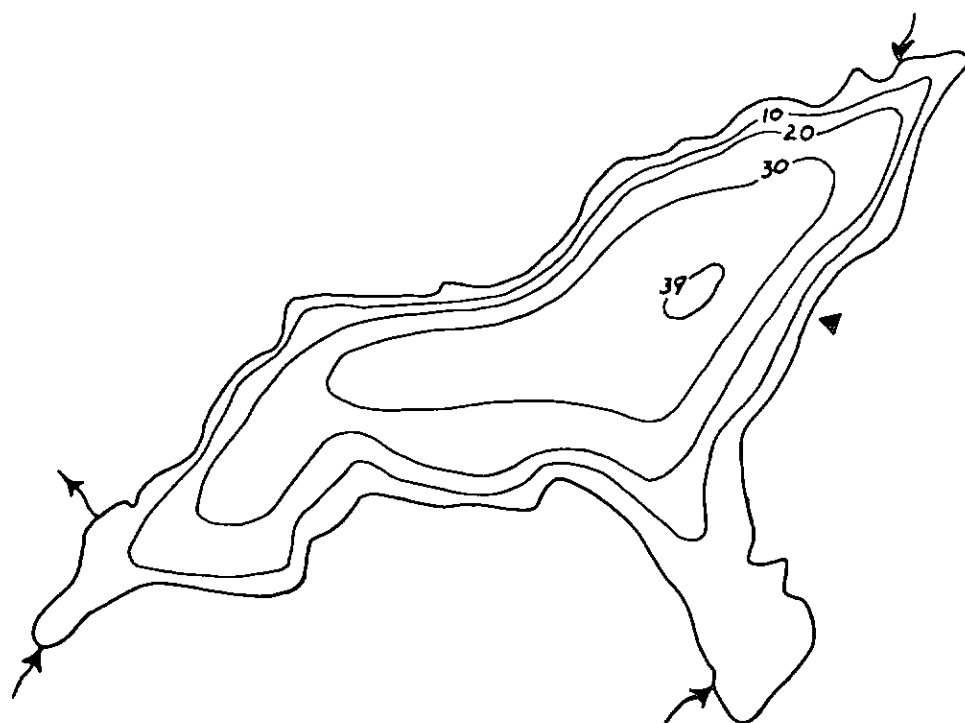
SAMPLE SITE 1
DATE 7/13/73
TIME 1635 1645
DEPTH (FT) 3. 33.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.06 0.77
TOTAL ORGANIC NITROGEN (N) 0.52 0.73
TOTAL PHOSPHORUS (P) 0.017 0.098
TOTAL ORTHOPHOSPHATE (P) 0.005 0.076
SPECIFIC CONDUCTANCE (MICROMHOS) 72 51
WATER TEMPERATURE (DEG C) 23.2 7.0
COLOR (PLATINUM-COBALT UNITS) 15 40
SECCHI-DISC VISIBILITY (FT) 6
DISSOLVED OXYGEN 10.4 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/13/73
TIME 1700
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) 48
FECAL COLIFORM, MEAN (COL./100ML) 27

REMARKS

MOST OF THE EMERSED PLANTS WERE PRESENT ALONG THE SHORELINE OF THE SOUTH-
WEST AND SOUTHEAST BAYS. A COUNTY PARK IS LOCATED ON THE EAST SHORE AND
THE LAKE IS HEAVILY USED DURING THE SUMMER. METRO OF SEATTLE STUDIED THE
LAKE IN 1971-72. THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR
TIMES IN 1975. WATER-STAGE RECORDS HAVE BEEN COLLECTED ON PINE LAKE
BY THE U.S. GEOLOGICAL SURVEY SINCE 1956.



EXPLANATION
 — 20 —
 Line of equal
 water depth
 Interval 10 feet

Pine Lake, King County. From Washington Department of Game, January 20, 1949.



Pine Lake, King County. June 1, 1970. Approx. scale 1:12,000.

PIPE LAKE

KING COUNTY

LATITUDE 47°21'58" LONGITUDE 122° 3' 6" T22N-R6E-28
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.49 SQ MI
ALTITUDE 550. FT
LAKE AREA 55. ACRES
LAKE VOLUME 1500. ACPE-FT
MEAN DEPTH 27. FT
MAXIMUM DEPTH 65. FT
SHORELINE LENGTH 1.7 MI
SHORELINE CONFIGURATION 1.6
DEVELOPMENT OF VOLUME 0.41
BOTTOM SLOPE 13. %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 83 %
NUMBER OF NEARSHORE HOMES 60
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 14 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 68 %
LAKE SURFACE 18 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

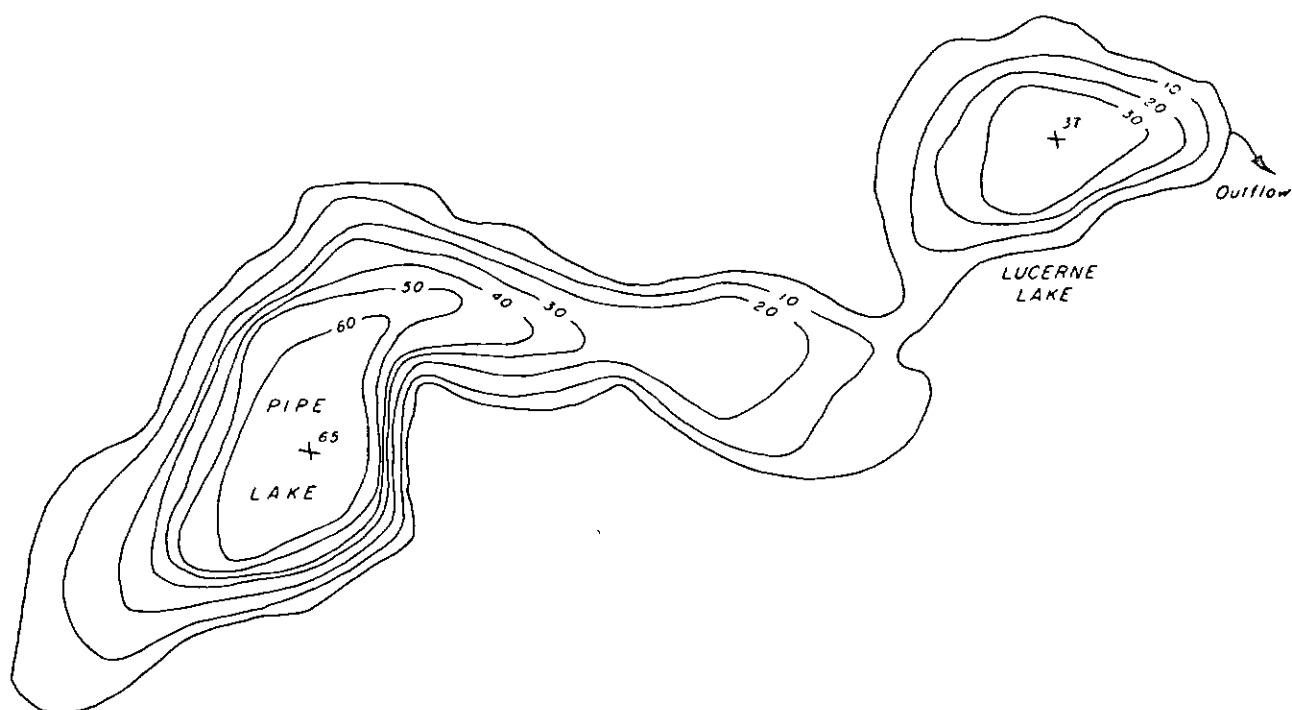
SAMPLE SITE 1
DATE 6/29/71
TIME 1400 1405
DEPTH (FT) 3. 56.
DISSOLVED NITRATE (N) 0.02 0.45
TOTAL NITRITE (N) -- --
TOTAL AMMONIA (N) 0.06 0.02
TOTAL ORGANIC NITROGEN (N) 0.24 0.14
TOTAL PHOSPHORUS (P) 0.010 0.020
DISSOLVED ORTHOPHOSPHATE (P) 0.010 0.010
SPECIFIC CONDUCTANCE (MICROMHOS) 49 54
WATER TEMPERATURE (DEG C) 18.0 5.0
COLOR (PLATINUM-COBALT UNITS) -- --
SECCHI-DISC VISIBILITY (FT) 14
DISSOLVED OXYGEN 9.6 0.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 9/ 4/74
TIME 1040
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 4
FECAL COLIFORM, MAXIMUM (COL./100ML) 62
FECAL COLIFORM, MEAN (COL./100ML) 23

REMARKS

EMERSED PLANTS COVERED MOST OF THE SHORELINE IN SCATTERED DENSE BEDS. PIPE AND LUCERNE LAKES ARE CONNECTED BY A NARROW CHANNEL. SOMETIME PRIOR TO 1934, THE ORIGINAL LAKE LEVEL WAS RAISED BY THE CONSTRUCTION OF A ROAD ACROSS THE OUTLET OF LUCERNE LAKE. METRO OF SEATTLE STUDIED THE LAKES IN 1971-72. THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES IN 1971. THE PLANT SURVEY WAS MADE ON SEPTEMBER 14, 1971.



N



0 1000 2000 FEET

EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Pipe Lake, King County. From Washington Department of Game, February 3, 1955.



Pipe Lake, King County. July 14, 1971. Approx. scale 1:6500.

PORTAGE BAY LAKE

KING COUNTY

LATITUDE 47°39'12" LONGITUDE 122°19'17" T25N-R4E-17

PUGET SOUND BASIN

PHYSICAL DATA

DRAINAGE AREA	600. SQ MI
ALTITUDE	14. FT
LAKE AREA	130. ACRES
LAKE VOLUME	2000. ACRE-FT
MEAN DEPTH	16. FT
MAXIMUM DEPTH	30. FT
SHORELINE LENGTH	2.5 MI
SHORELINE CONFIGURATION	1.5
DEVELOPMENT OF VOLUME	0.52
BOTTOM SLOPE	1.1 %
BASIN GEOLOGY	SED./META.
INFLOW	PERENNIAL
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	35 %
NUMBER OF NEARSHORE HOMES	99
LAND USE IN DRAINAGE BASIN	NOT DETERMINED
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1
DATE	9/ 6/74
TIME	1400 1405
DEPTH (FT)	3. 20.
TOTAL NITRATE (N)	0.01 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.05 0.02
TOTAL ORGANIC NITROGEN (N)	0.14 0.24
TOTAL PHOSPHORUS (P)	0.012 0.012
TOTAL ORTHOPHOSPHATE (P)	0.005 0.004
SPECIFIC CONDUCTANCE (MICROMHOS)	95 95
WATER TEMPERATURE (DEG C)	21.0 20.4
COLOR (PLATINUM-COBALT UNITS)	5 5
SECCHI-DISC VISIBILITY (FT)	9
DISSOLVED OXYGEN	8.8 8.1

LAKE SHORELINE COVERED BY EMERSED PLANTS

LITTLE OR NONE

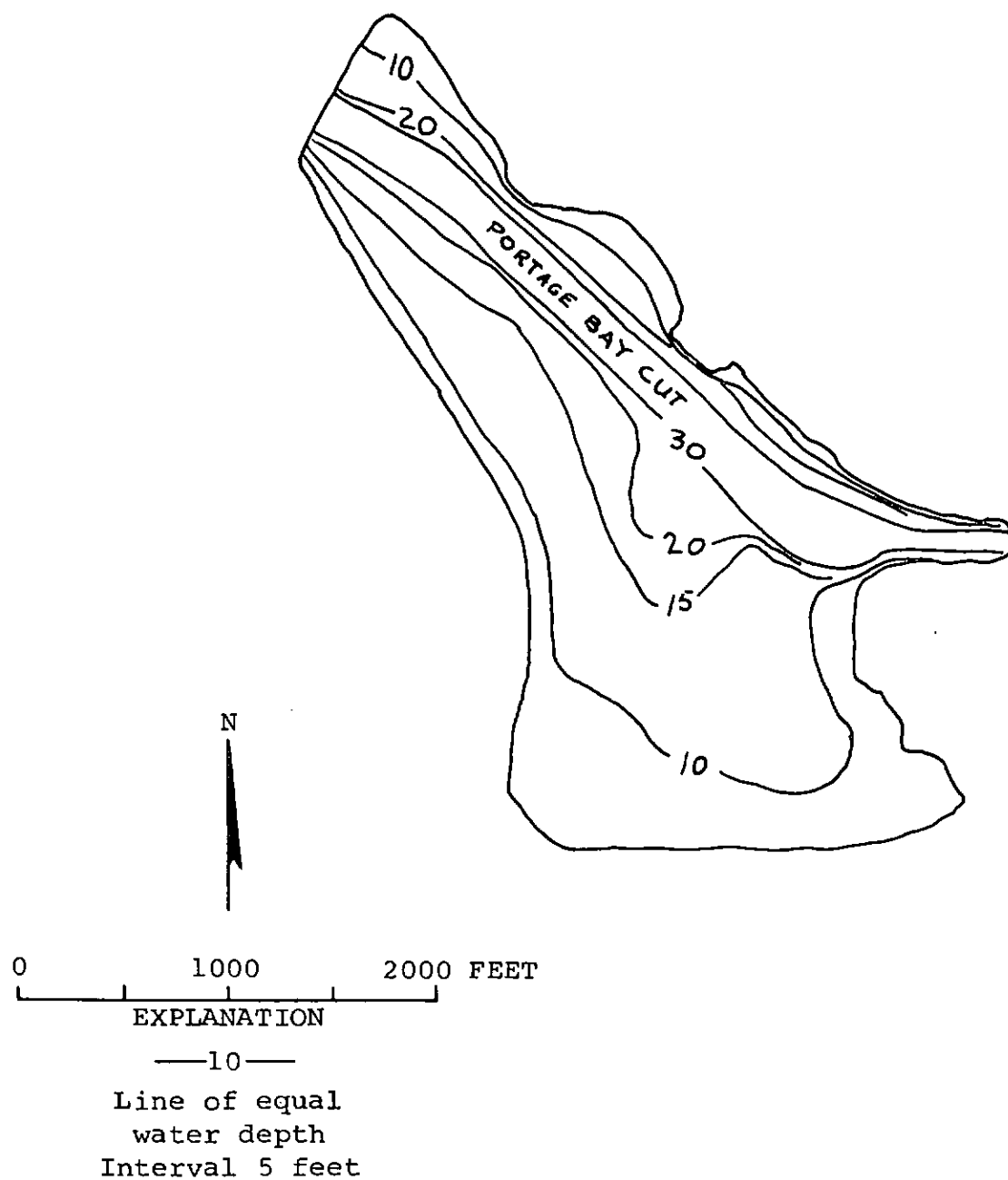
LAKE SURFACE COVERED BY EMERSED PLANTS

NONE OR <1 %

DATE	9/ 6/74
TIME	1415
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	40
FECAL COLIFORM, MEAN (COL./100ML)	15

REMARKS

THE LAKE IS AN EXTENSION OF LAKE UNION AND PART OF THE LAKE WASHINGTON SHIP CANAL. MOST OF THE SHORELINE IS USED EITHER BY THE UNIVERSITY OF WASHINGTON FACILITIES OR FOR COMMERCIAL DEVELOPMENT. THE BATHYMETRIC MAP WAS CONTOURED FROM DEPTH SOUNDINGS THAT WERE SURVEYED BY THE U.S. CORP OF ENGINEERS. LAND USE DATA ARE NOT GIVEN BECAUSE OF THE VERY LARGE DRAINAGE AREA COVERING THE ENTIRE CEDAR RIVER BASIN.



Portage Bay Lake, King County. From U.S. Corp Engineers, date unknown.



Portage Bay Lake, King County. May 16, 1970. Approx. scale 1:12,000.

RACHOR LAKE

KING COUNTY

LATITUDE 47°31'15" LONGITUDE 121°42'20" T24N-R9E-31
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.19 SQ MI
 ALTITUDE 3500. FT
 LAKE AREA 4. ACRES
 LAKE VOLUME 29. ACRE-FT
 MEAN DEPTH 7. FT
 MAXIMUM DEPTH 12. FT
 SHORELINE LENGTH 0.31 MI
 SHORELINE CONFIGURATION 1.1
 DEVELOPMENT OF VOLUME 0.59
 BOTTOM SLOPE 2.5 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 97 %
 LAKE SURFACE 3 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

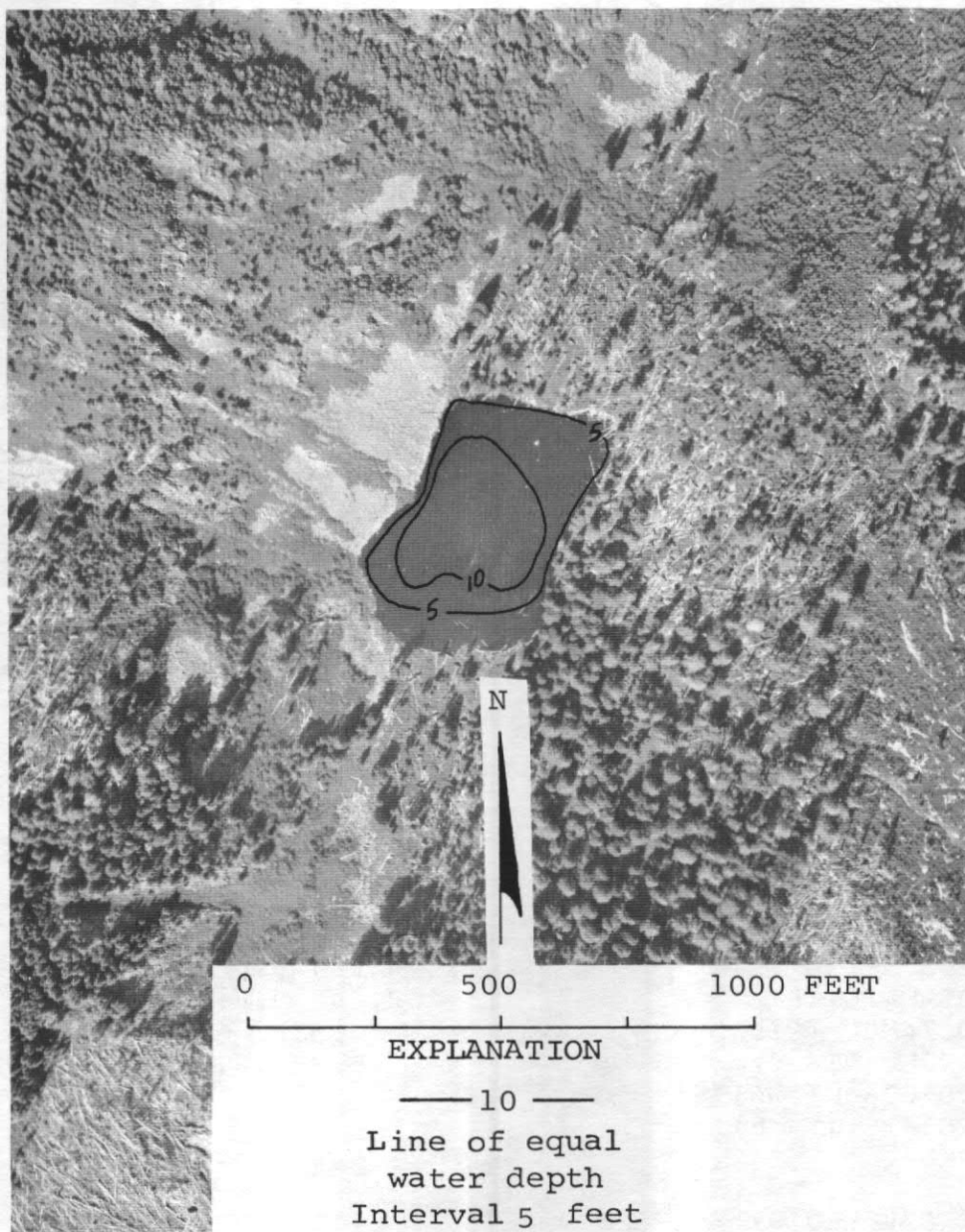
 SAMPLE SITE 1
 DATE 7/11/73
 TIME 1200 1210
 DEPTH (FT) 3. 9.
 TOTAL NITRATE (N) 0.19 0.18
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.08 0.10
 TOTAL ORGANIC NITROGEN (N) 0.08 0.08
 TOTAL PHOSPHORUS (P) 0.010 0.013
 TOTAL ORTHOPHOSPHATE (P) 0.003 0.003
 SPECIFIC CONDUCTANCE (MICROMHOS) 16 16
 WATER TEMPERATURE (DEG C) 14.2 10.7
 COLOR (PLATINUM-COBALT UNITS) 0 5
 SECCHI-DISC VISIBILITY (FT) >12
 DISSOLVED OXYGEN 9.0 9.4

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/11/73
 TIME 1215
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 A SHALLOW HIGH ALTITUDE LAKE. NO AQUATIC PLANTS WERE OBSERVED.



Rachor Lake, King County. Bathymetric map from
U.S. Geological Survey, September 4, 1973.
Aerial photo, August 3, 1973.

RATTLESNAKE LAKE

KING COUNTY

LATITUDE 47°25'32" LONGITUDE 121°46'40" T23N-R8E-34
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.86 SQ MI
 ALTITUDE 911. FT
 LAKE AREA 120. ACRES
 LAKE VOLUME 2700. ACRE-FT
 MEAN DEPTH 22. FT
 MAXIMUM DEPTH 54. FT
 SHORELINE LENGTH 2.2 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.41
 BOTTOM SLOPE 2.1 %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 1 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 89 %
 LAKE SURFACE 10 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

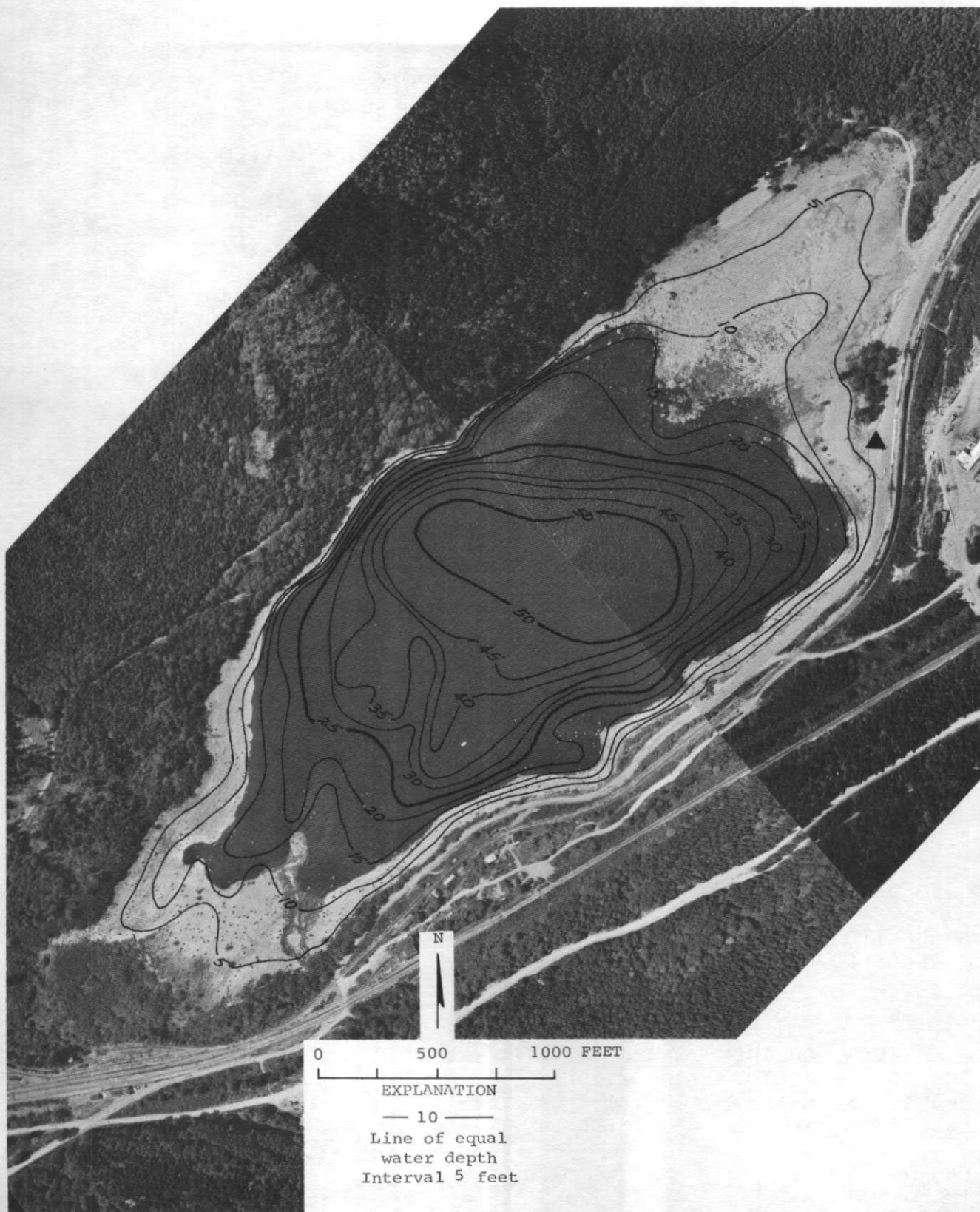
 SAMPLE SITE 1
 DATE 8/ 8/73
 TIME 1415 1420
 DEPTH (FT) 3. 46.
 TOTAL NITRATE (N) 0.01 0.03
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.04 0.04
 TOTAL ORGANIC NITROGEN (N) 0.06 0.03
 TOTAL PHOSPHORUS (P) 0.004 0.027
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.017
 SPECIFIC CONDUCTANCE (MICROMHOS) 65 65
 WATER TEMPERATURE (DEG C) 16.9 10.2
 COLOR (PLATINUM-CORALT UNITS) 5 5
 SECCHI-DISC VISIBILITY (FT) 33
 DISSOLVED OXYGEN 9.4 10.4

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/ 8/73
 TIME 1425
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 LAKE STAGE FLUCTUATES 25 FEET OR MORE. VERY FEW AQUATIC PLANTS WERE
 OBSERVED. THERE WERE MANY SUBMERSED STUMPS AROUND THE LAKE. THE U.S.
 GEOLOGICAL SURVEY MAINTAINS A NONRECORDING GAGE TO MEASURE WATER LEVEL.



Rattlesnake Lake, King County. Bathymetric map from
U.S. Geological Survey, July 26, 1973.
Aerial photo, May 17, 1973.

RAVENSDALE LAKE

KING COUNTY

LATITUDE 47°20'57" LONGITUDE 121°59'39" T22N-R6E-36
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 1.43 SQ MI
ALTITUDE 575. FT
LAKE AREA 17. ACRES
LAKE VOLUME 72. ACRE-FT
MEAN DEPTH 4. FT
MAXIMUM DEPTH 14. FT
SHORELINE LENGTH 0.77 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.30
BOTTOM SLOPE 1.4 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 1 %
RESIDENTIAL SUBURBAN 1 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 96 %
LAKE SURFACE 2 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

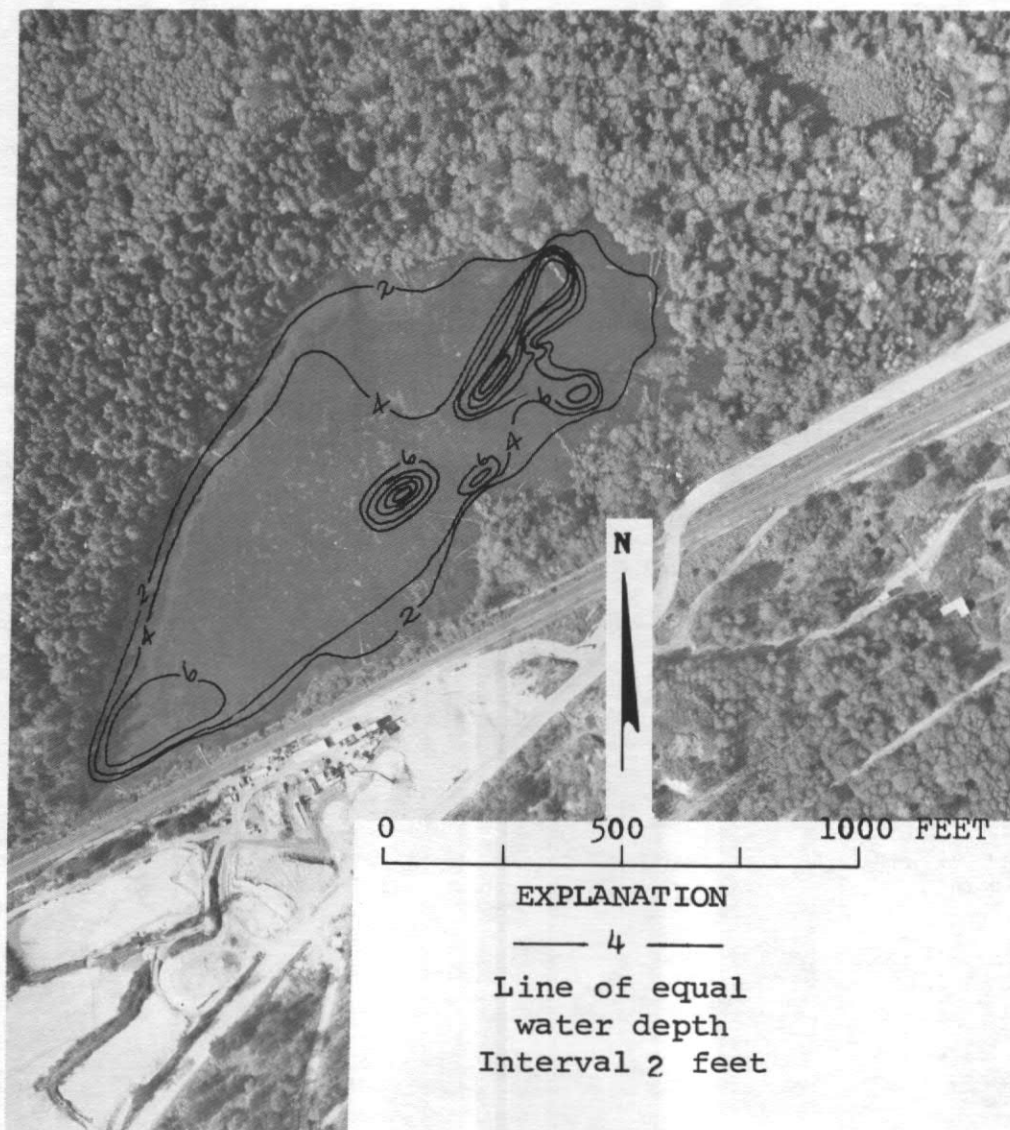
SAMPLE SITE 1
DATE 7/13/73
TIME 1100 1110
DEPTH (FT) 3. 11.
TOTAL NITRATE (N) 0.40 0.37
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.03 0.10
TOTAL ORGANIC NITROGEN (N) 0.14 0.18
TOTAL PHOSPHORUS (P) 0.011 0.017
TOTAL ORTHOPHOSPHATE (P) 0.002 0.002
SPECIFIC CONDUCTANCE (MICROMHOS) 98 87
WATER TEMPERATURE (DEG C) 9.9 8.0
COLOR (PLATINUM-COBALT UNITS) 10 10
SECCHI-DISC VISIBILITY (FT) >15
DISSOLVED OXYGEN 13.6 10.7

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 26- 50 %

DATE 7/13/73
TIME 1115
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE WATER TEMPERATURES OF THE LAKE WERE COOLER THAN NORMAL, PROBABLY DUE TO SPRINGS FEEDING THE LAKE. THE BOTTOM OF THE LAKE WAS COVERED WITH A HEAVY GROWTH OF SUBMERSED PLANTS(MOSTLY CHARA). THE LITTORAL BOTTOM IS MOSTLY MUCK. A SILICA SAND MINE IS LOCATED NEAR THE SOUTH END OF THE LAKE.



Ravensdale Lake, King County. Bathymetric map from
U.S. Geological Survey, June 28, 1973.
Aerial photo, April 30, 1973.

RETREAT LAKE

KING COUNTY

LATITUDE 47°21' 0" LONGITUDE 121°56'31" T22N-R7E-32
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 2.21 SQ MI
ALTITUDE 731. FT
LAKE AREA 51. ACRES
LAKE VOLUME 1200. ACRE-FT
MEAN DEPTH 23. FT
MAXIMUM DEPTH 50. FT
SHORELINE LENGTH 1.3 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.46
BOTTOM SLOPE 3.0 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 81 %
NUMBER OF NEARSHORE HOMES 63
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 4 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 92 %
LAKE SURFACE 4 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

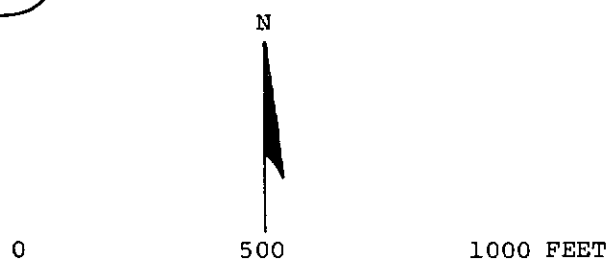
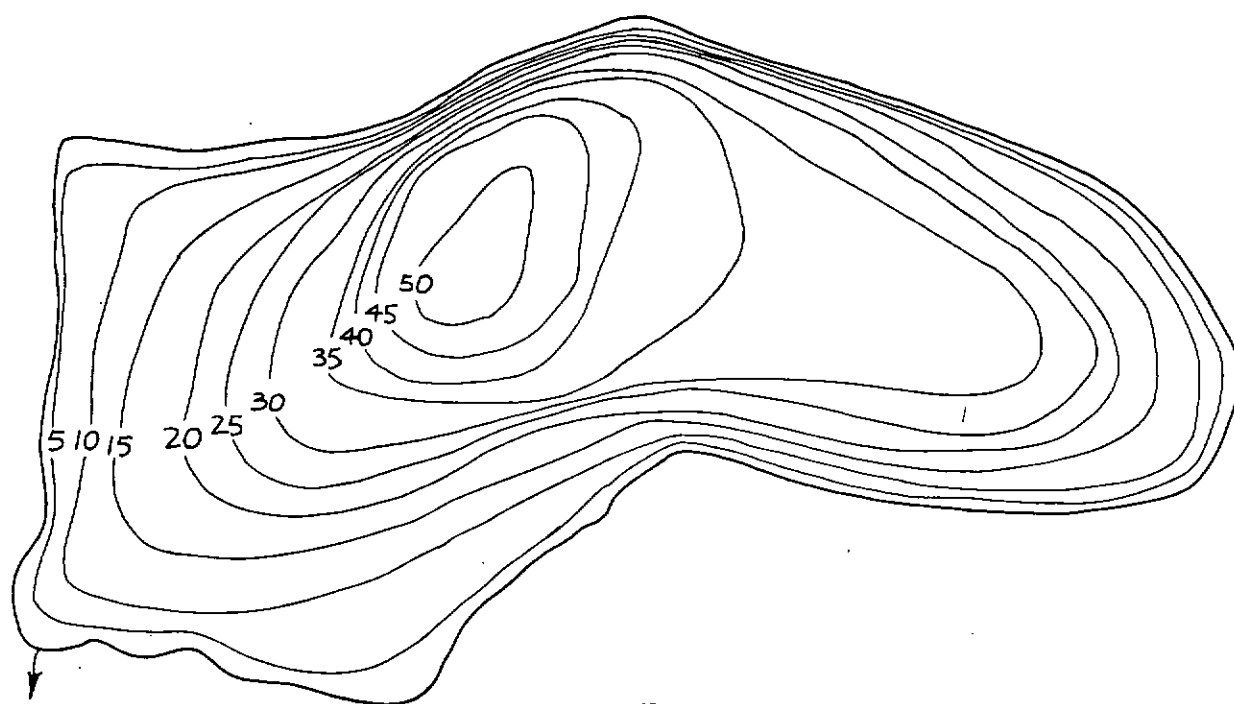
SAMPLE SITE 1
DATE 6/26/72
TIME 1035 1045
DEPTH (FT) 3. 39.
DISSOLVED NITRATE (N) 0.24 0.15
DISSOLVED NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.03 0.42
TOTAL ORGANIC NITROGEN (N) 0.20 0.21
TOTAL PHOSPHORUS (P) 0.010 0.020
DISSOLVED ORTHOPHOSPHATE (P) 0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS) 70 85
WATER TEMPERATURE (DEG C) 16.9 8.9
COLOR (PLATINUM-COBALT UNITS) 15 20
SECCHI-DISC VISIBILITY (FT) 13
DISSOLVED OXYGEN 10.4 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 6/26/72
TIME 1100
NUMBER OF FECAL COLIFORM SAMPLES 5
FECAL COLIFORM, MINIMUM (COL./100ML) 30
FECAL COLIFORM, MAXIMUM (COL./100ML) 124
FECAL COLIFORM, MEAN (COL./100ML) 57

REMARKS

A CHURCH CAMP IS LOCATED ON THE WEST END OF THE LAKE. IN THE SUMMER THE LAKE IS HEAVILY USED FOR RECREATION. IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON MARCH 6, 1972. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



EXPLANATION
 —10—
 Line of equal
 water depth
 Interval 5 feet

Retreat Lake, King County. From Washington Department of Game, date unknown.



Retreat Lake, King County. August 9, 1972. Approx. scale 1:4800.

SAWYER LAKE

KING COUNTY

LATITUDE 47°20' 3" LONGITUDE 122° 2'24" T21N-R6E-4
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 13.0 SQ MI
ALTITUDE 512. FT
LAKE AREA 300. ACRES
LAKE VOLUME 7700. ACRE-FT
MEAN DEPTH 26. FT
MAXIMUM DEPTH 58. FT
SHORELINE LENGTH 7.0 MI
SHORELINE CONFIGURATION 2.9
DEVELOPMENT OF VOLUME 0.45
BOTTOM SLOPE 1.4 %
BASIN GEOLOGY SED./META.
INFLOW PERENNIAL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 83 %
NUMBER OF NEARSHORE HOMES 290
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 2 %
RESIDENTIAL SUBURBAN 2 %
AGRICULTURAL 5 %
FOREST OR UNPRODUCTIVE 87 %
LAKE SURFACE 4 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

DATE 6/25/73
TIME 1440 1450
DEPTH (FT) 3. 52.
TOTAL NITRATE (N) 0.11 0.46
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.07 0.06
TOTAL ORGANIC NITROGEN (N) 0.06 0.01
TOTAL PHOSPHORUS (P) 0.022 0.023
DISSOLVED ORTHOPHOSPHATE (P) 0.002 0.005
SPECIFIC CONDUCTANCE (MICROMHOS) 139 134
WATER TEMPERATURE (DEG C) 19.8 6.9
COLOR (PLATINUM-COBALT UNITS) 10 15
SECCHI-DISC VISIBILITY (FT) 14
DISSOLVED OXYGEN 9.6 1.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 6/25/73
TIME 1510
NUMBER OF FECAL COLIFORM SAMPLES 4
FECAL COLIFORM, MINIMUM (COL./100ML) 10
FECAL COLIFORM, MAXIMUM (COL./100ML) 142
FECAL COLIFORM, MEAN (COL./100ML) 71

REMARKS

SUBMERSED PLANTS (WATER MILFOIL) COVERED ABOUT 30 PERCENT OF THE LAKE BOTTOM ALONG THE LAKE MARGIN AND IN THE BAYS. THE SOUTHEAST CORNER OF THE LAKE HAS UNDERGONE AN EXTENSIVE DREDGE AND FILL OPERATION TO CREATE ADDITIONAL LAND FOR HOMESITES. IN 1973 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 20, 1973. THE U.S. GEOLOGICAL SURVEY MAINTAINS A NONRECORDING GAGE TO MEASURE WATER LEVEL. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Sawyer Lake, King County. From U.S. Geological Survey, June 6, 1973.



Sawyer Lake, King County. June 1, 1970. Approx. scale 1:12,000.

SHADOW LAKE

KING COUNTY

LATITUDE 47°24' 8" LONGITUDE 122° 4'58" T22N-R6E-7
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.71 SQ MI
ALTITUDE 540. FT
LAKE AREA 49. ACRES
LAKE VOLUME 1100. ACRE-FT
MEAN DEPTH 22. FT
MAXIMUM DEPTH 45. FT
SHORELINE LENGTH 1.2 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.49
BOTTOM SLOPE 2.7 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 66 %
NUMBER OF NEARSHORE HOMES 24
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 8 %
AGRICULTURAL 23 %
FOREST OR UNPRODUCTIVE 58 %
LAKE SURFACE 11 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

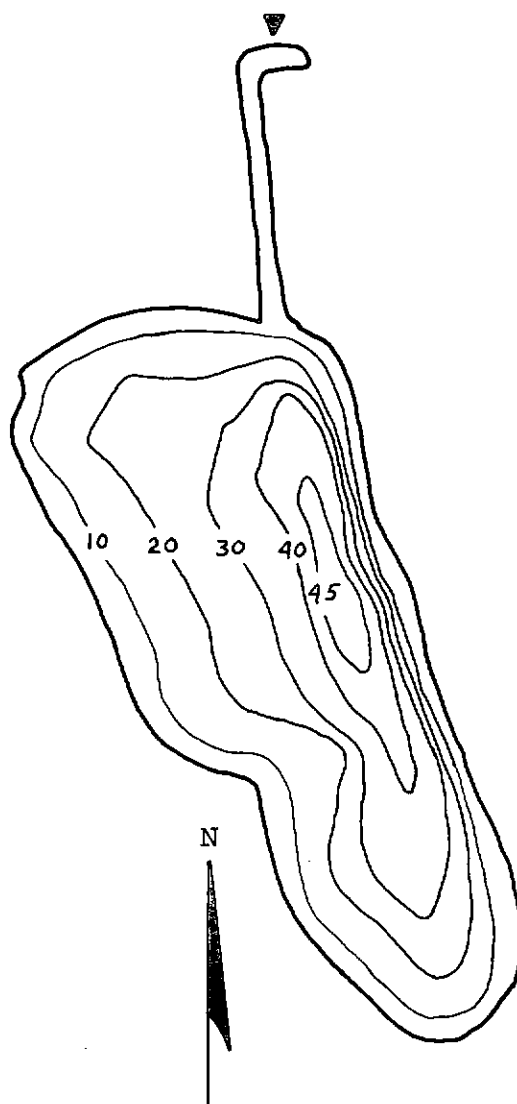
SAMPLE SITE 1
DATE 6/21/74
TIME 1420 1430
DEPTH (FT) 3. 36.
TOTAL NITRATE (N) 0.16 0.62
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.05 0.04
TOTAL ORGANIC NITROGEN (N) 0.38 0.33
TOTAL PHOSPHORUS (P) 0.014 0.022
DISSOLVED ORTHOPHOSPHATE (P) 0.006 0.004
SPECIFIC CONDUCTANCE (MICROMHOS) 54 52
WATER TEMPERATURE (DEG C) 20.0 6.5
COLOR (PLATINUM-COBALT UNITS) 30 50
SECCHI-DISC VISIBILITY (FT) 10
DISSOLVED OXYGEN 9.4 0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 6/21/74
TIME 1535
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) 21
FECAL COLIFORM, MEAN (COL./100ML) 16

REMARKS

EMERSED PLANTS COVERED ABOUT 60 PERCENT OF THE SHORELINE IN SCATTERED DENSE BEDS. THE WEST SIDE OF THE LAKE IS MOSTLY MARSH. THE LAKE AREA HAS BEEN INCREASED BY ABOUT 4 PERCENT DUE TO THE DREDGING ON THE NORTH END OF THE LAKE. THE LITTORAL BOTTOM IS MOSTLY MUCK. IN 1973 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 1, 1973. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



0 500 1000 FEET

EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Shadow Lake, King County. From Washington
Department of Game, February 1, 1952.



Shadow Lake, King County. May 17, 1973. Approx. scale 1:4800.

SHADY LAKE

KING COUNTY

LATITUDE 47°25'43" LONGITUDE 122° 6'19" T22N-R5E-1
CEDAR RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.34 SQ MI
ALTITUDE 520. FT
LAKE AREA 21. ACRES
LAKE VOLUME 440. ACRE-FT
MEAN DEPTH 21. FT
MAXIMUM DEPTH 40. FT
SHORELINE LENGTH 0.78 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.52
BOTTOM SLOPE 3.7 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 91 %
NUMBER OF NEARSHORE HOMES 45
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 8 %
AGRICULTURAL 14 %
FOREST OR UNPRODUCTIVE 68 %
LAKE SURFACE 10 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

DATE 9/ 6/74
TIME 1140 1145
DEPTH (FT) 3. 31.
TOTAL NITRATE (N) 0.12 0.03
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.03 0.72
TOTAL ORGANIC NITROGEN (N) 0.31 0.38
TOTAL PHOSPHORUS (P) 0.006 0.016
TOTAL ORTHOPHOSPHATE (P) 0.006 0.007
SPECIFIC CONDUCTANCE (MICROMHOS) 53 69
WATER TEMPERATURE (DEG C) 21.3 6.8
COLOR (PLATINUM-COBALT UNITS) 0 10
SECCHI-DISC VISIBILITY (FT) 7
DISSOLVED OXYGEN 9.2 0.4

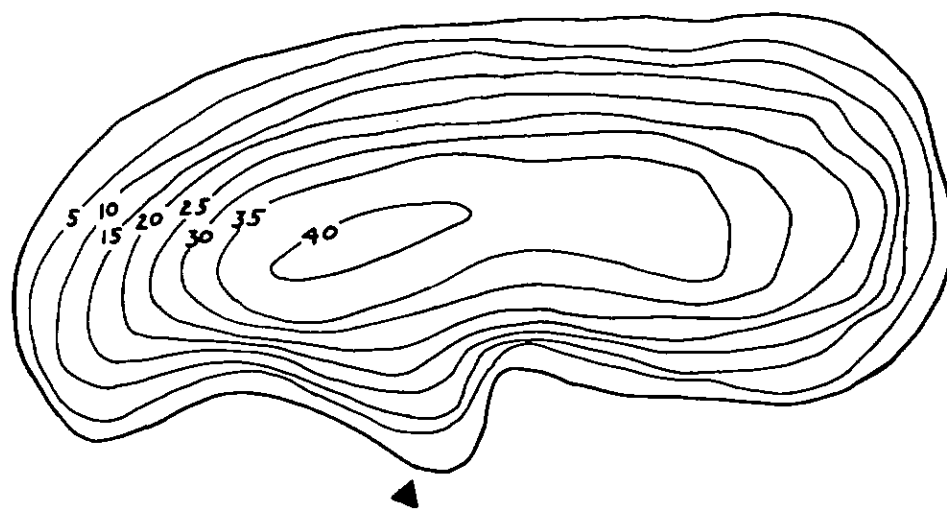
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

1- 10 %
NONE OR <1 %

DATE 7/ 5/73
TIME 1230
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 30
FECAL COLIFORM, MAXIMUM (COL./100ML) 67
FECAL COLIFORM, MEAN (COL./100ML) 43

REMARKS

METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



N



0 500 1000 FEET

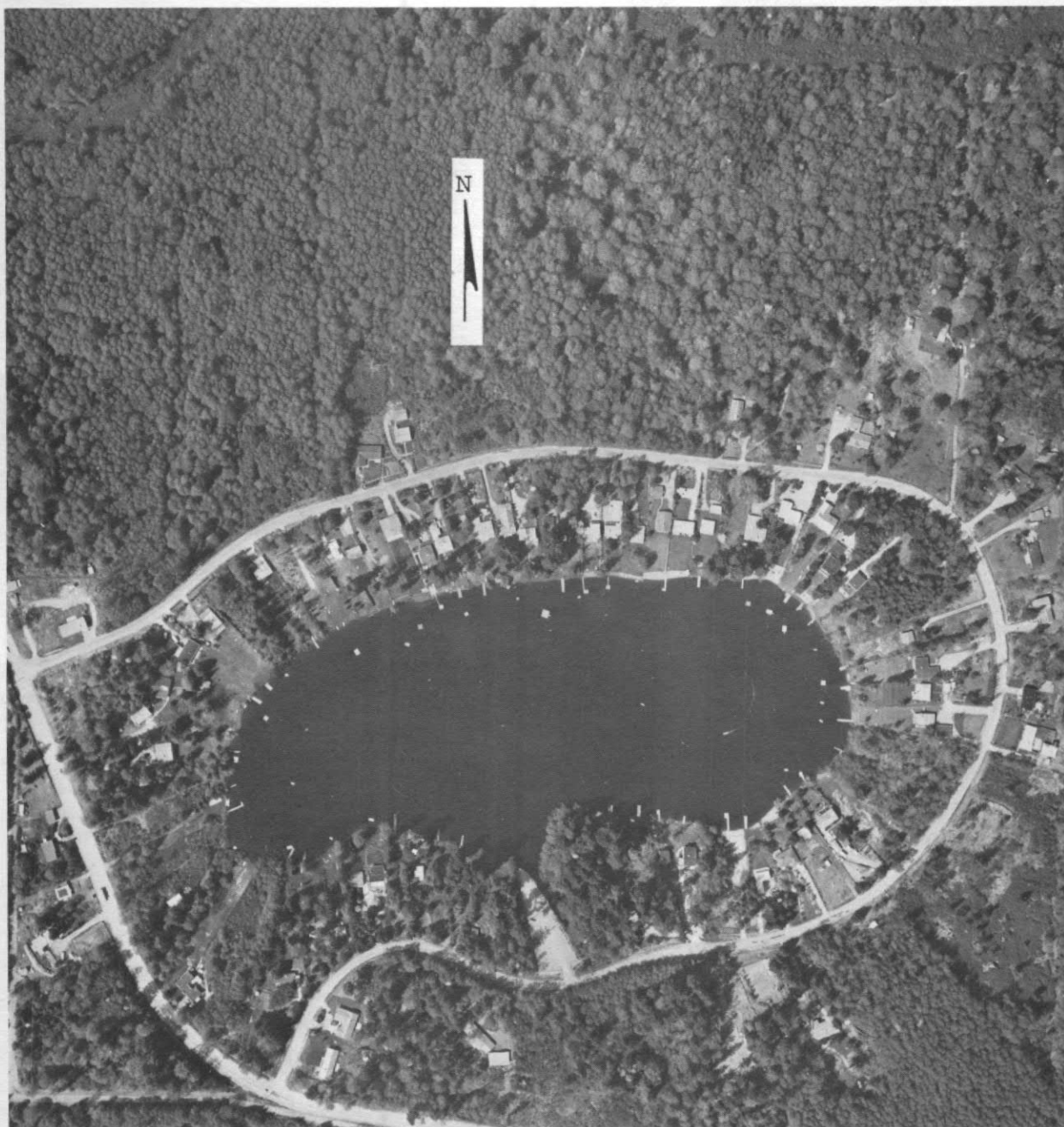


EXPLANATION

— 10 —

Line of equal
water depth
Interval 5 feet

Shady Lake, King County. From Washington Department of Game, August 9, 1947.



Shady Lake, King County. April 30, 1973. Approx. scale 1:4800.

SMC LAKE

KING COUNTY

LATITUDE 47°32'53" LONGITUDE 121°39'24" T24N-R9E-22
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.35 SQ MI
 ALTITUDE 3702. FT
 LAKE AREA 37. ACRES
 LAKE VOLUME 3000. ACRE-FT
 MEAN DEPTH 81. FT
 MAXIMUM DEPTH 180. FT
 SHORELINE LENGTH 1.1 MI
 SHORELINE CONFIGURATION 1.3
 DEVELOPMENT OF VOLUME 0.46
 BOTTOM SLOPE 12. %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 84 %
 LAKE SURFACE 16 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

 SAMPLE SITE 1
 DATE 7/11/73
 TIME 1330 1345
 DEPTH (FT) 3. 151.
 TOTAL NITRATE (N) 0.15 0.07
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.04 0.06
 TOTAL ORGANIC NITROGEN (N) 0.07 0.16
 TOTAL PHOSPHORUS (P) 0.004 0.006
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 10 12
 WATER TEMPERATURE (DEG C) 12.5 4.2
 COLOR (PLATINUM-COBALT UNITS) 0 0
 SECCHI-DISC VISIBILITY (FT) 34
 DISSOLVED OXYGEN 9.3 7.2

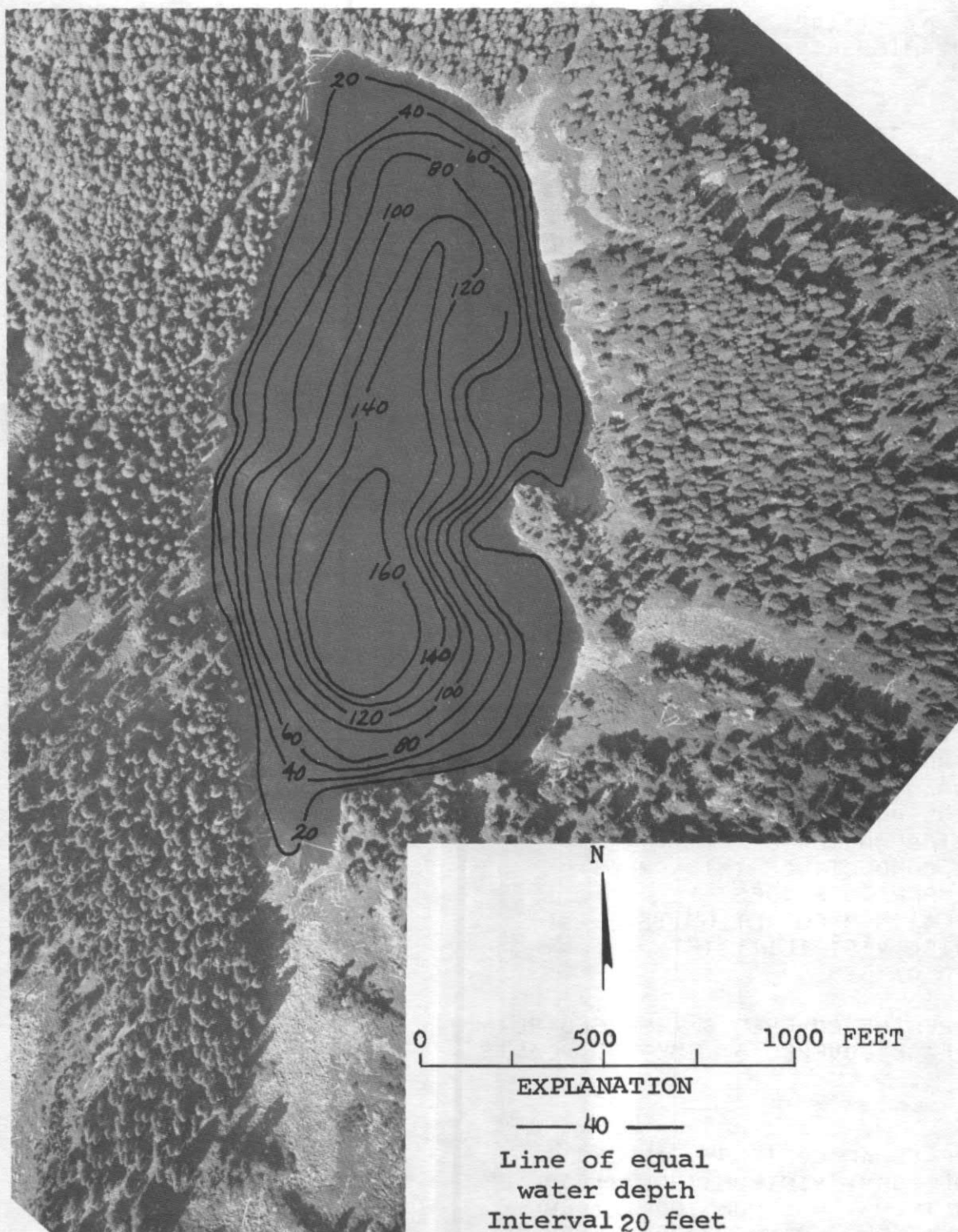
LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE 7/11/73
 TIME 1350
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 VERY FEW AQUATIC PLANTS WERE OBSERVED. LOG AND WOOD DEBRIS COVER THE SHORELINE.



SMC Lake, King County. Bathymetric map from
U.S. Geological Survey, September 4, 1973.
Aerial photo, August 3, 1973.

STAR LAKE

KING COUNTY

LATITUDE 47°21'10" LONGITUDE 122°17' 6" T22N-R4E-34
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.59 SQ MI
ALTITUDE 320. FT
LAKE AREA 35. ACRES
LAKE VOLUME 870. ACRE-FT
MEAN DEPTH 25. FT
MAXIMUM DEPTH 50. FT
SHORELINE LENGTH 1.1 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.50
BOTTOM SLOPE 3.6 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 90 %
NUMBER OF NEARSHORE HOMES 51
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 14 %
RESIDENTIAL SUBURBAN 27 %
AGRICULTURAL 4 %
FOREST OR UNPRODUCTIVE 46 %
LAKE SURFACE 9 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

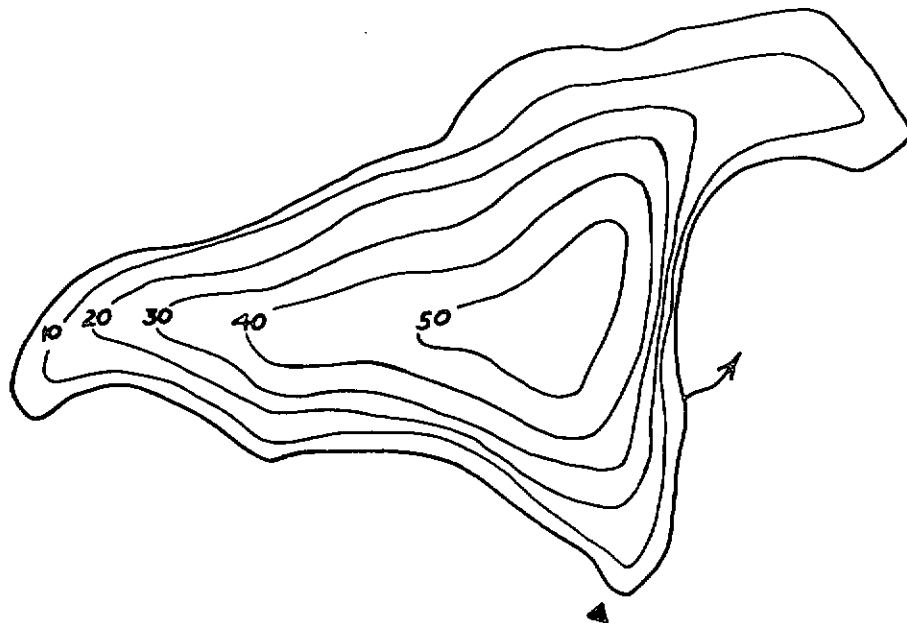
SAMPLE SITE 1
DATE 7/19/73
TIME 1315 1325
DEPTH (FT) 3. 46.
TOTAL NITRATE (N) 0.03 0.02
TOTAL NITRITE (N) 0.01 0.00
TOTAL AMMONIA (N) 1.0 0.02
TOTAL ORGANIC NITROGEN (N) 0.20 0.24
TOTAL PHOSPHORUS (P) 0.10 0.005
TOTAL ORTHOPHOSPHATE (P) 0.054 0.003
SPECIFIC CONDUCTANCE (MICROMHOS) 84 83
WATER TEMPERATURE (DEG C) 23.2 5.4
COLOR (PLATINUM-COBALT UNITS) 25 0
SECCHI-DISC VISIBILITY (FT) 22
DISSOLVED OXYGEN 9.0 0.5

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/19/73
TIME 1335
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 12
FECAL COLIFORM, MAXIMUM (COL./100ML) 121
FECAL COLIFORM, MEAN (COL./100ML) 51

REMARKS

METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



N



0 500 1000 FEET

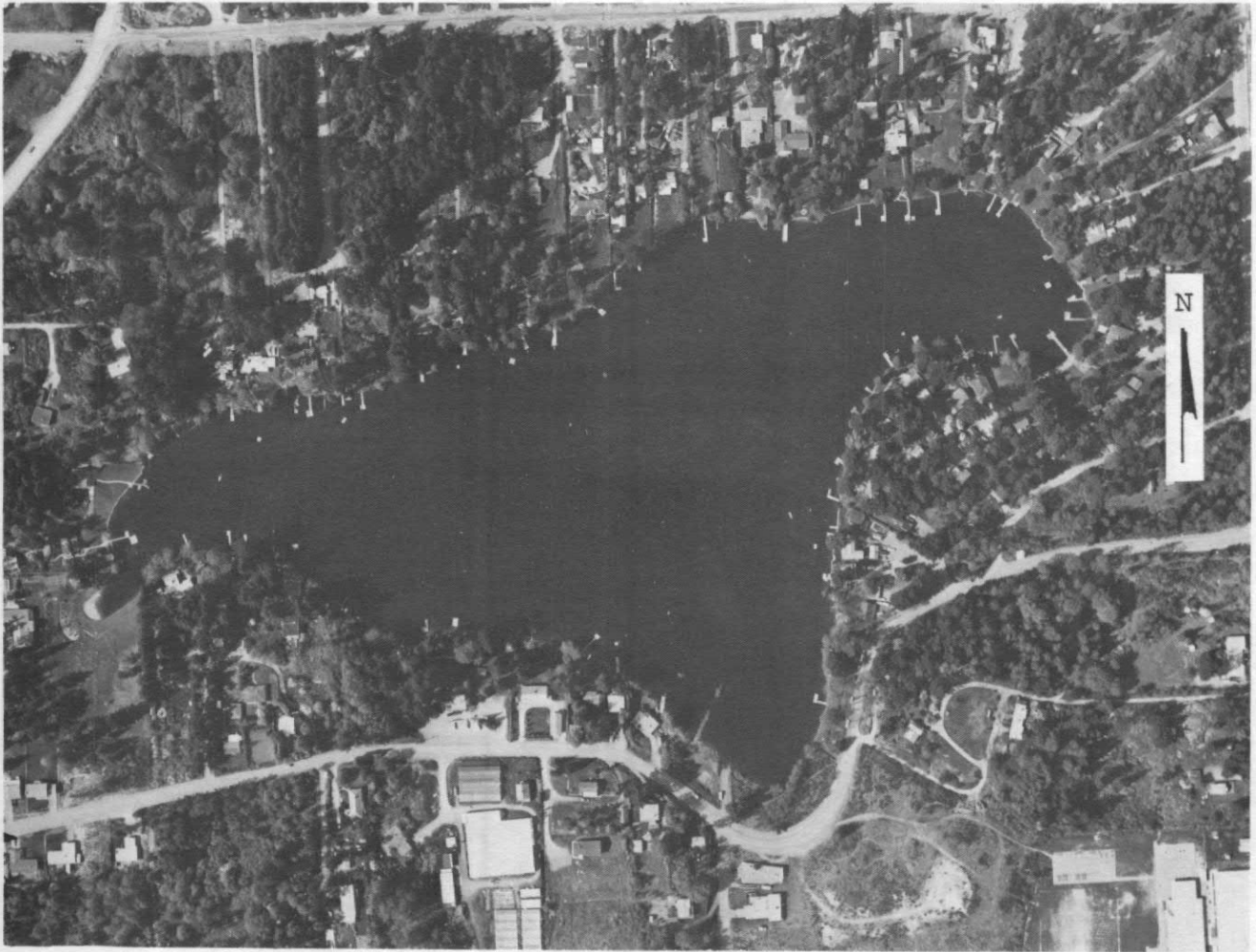


EXPLANATION

—20—

Line of equal
water depth
Interval 10 feet

Star Lake, King County. From Washington Department of Game, January 31, 1952.



Star Lake, King County. April 30, 1973. Approx. scale 1:4800.

STEEL LAKE

KING COUNTY

LATITUDE 47°19'33" LONGITUDE 122°17'59" T21N-R4E-9

PUGET SOUND BASIN

PHYSICAL DATA

DRAINAGE AREA	0.38 SQ MI
ALTITUDE	440. FT
LAKE AREA	46. ACRES
LAKE VOLUME	600. ACRE-FT
MEAN DEPTH	13. FT
MAXIMUM DEPTH	24. FT
SHORELINE LENGTH	1.3 MI
SHORELINE CONFIGURATION	1.4
DEVELOPMENT OF VOLUME	0.54
BOTTOM SLOPE	1.5 %
BASIN GEOLOGY	SED./META.
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	86 %
NUMBER OF NEARSHORE HOMES	90
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	4 %
RESIDENTIAL SUBURBAN	62 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	15 %
LAKE SURFACE	19 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

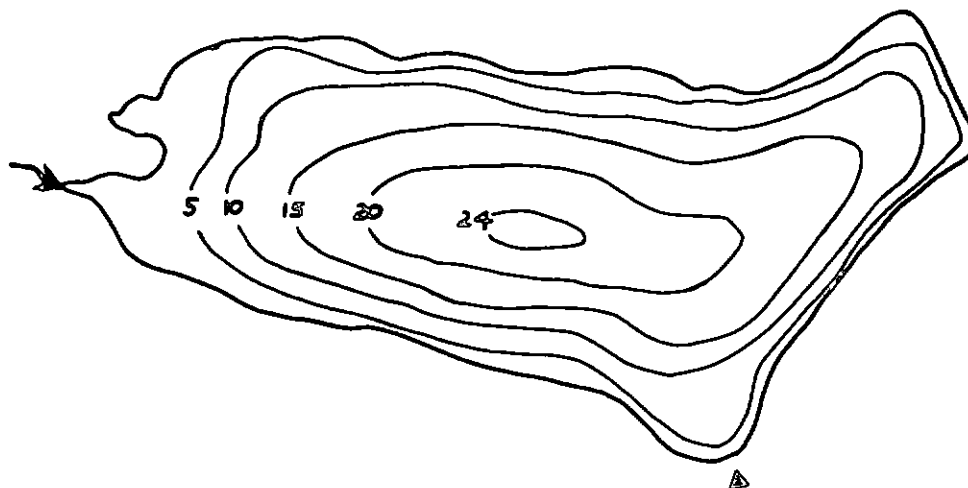
SAMPLE SITE	1
DATE	7/19/73
TIME	1500 1510
DEPTH (FT)	3. 19.
TOTAL NITRATE (N)	0.01 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.05 0.13
TOTAL ORGANIC NITROGEN (N)	0.20 0.28
TOTAL PHOSPHORUS (P)	0.018 0.058
TOTAL ORTHOPHOSPHATE (P)	0.006 0.013
SPECIFIC CONDUCTANCE (MICROMHOS)	76 81
WATER TEMPERATURE (DEG C)	24.0 17.5
COLOR (PLATINUM-COBALT UNITS)	0 90
SECCHI-DISC VISIBILITY (FT)	13
DISSOLVED OXYGEN	8.3 1.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	7/19/73
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	16
FECAL COLIFORM, MAXIMUM (COL./100ML)	119
FECAL COLIFORM, MEAN (COL./100ML)	57

REMARKS

THE LAKE HAD A HEAVY GROWTH OF EMERSED PLANTS ON THE EAST END OF THE LAKE. A COUNTY PARK IS LOCATED ON THE SOUTH END OF THE LAKE. THE LAKE IS HEAVILY USED FOR RECREATION DURING THE SUMMER. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



N

0 500 1000 FEET

EXPLANATION

—10—

Line of equal
water depth
Interval 5 feet

Steel Lake, King County. From Washington Department of Game, August 8, 1947.



Steel Lake, King County. May 17, 1973. Approx. scale 1:4800.

STURTEVANT LAKE

KING COUNTY

LATITUDE 47°37' 9" LONGITUDE 122°10'48" T25N-R5E-28
LAKE WASHINGTON BASIN

PHYSICAL DATA

DRAINAGE AREA	0.66 SQ MI
ALTITUDE	140. FT
LAKE AREA	10. ACRES
LAKE VOLUME	72. ACRE-FT
MEAN DEPTH	8. FT
MAXIMUM DEPTH	11. FT
SHORELINE LENGTH	0.44 MI
SHORELINE CONFIGURATION	1.0
DEVELOPMENT OF VOLUME	0.69
BOTTOM SLOPE	1.5 %
BASIN GEOLOGY	SED./META.
INFLOW	NONE VISIBLE
OUTFLOW CHANNEL	ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	27 %
RESIDENTIAL SUBURBAN	17 %
AGRICULTURAL	13 %
FOREST OR UNPRODUCTIVE	41 %
LAKE SURFACE	2 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	7/16/73	
TIME	1215	1220
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.01	0.00
TOTAL AMMONIA (N)	1.0	0.60
TOTAL ORGANIC NITROGEN (N)	1.8	1.1
TOTAL PHOSPHORUS (P)	0.50	0.61
TOTAL ORTHOPHOSPHATE (P)	0.32	0.55
SPECIFIC CONDUCTANCE (MICROMHOS)	100	110
WATER TEMPERATURE (DEG C)	23.7	18.6
COLOR (PLATINUM-COBALT UNITS)	85	55
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	11.6	0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	7/16/73
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM. MINIMUM (COL./100ML)	25
FECAL COLIFORM. MAXIMUM (COL./100ML)	72
FECAL COLIFORM. MEAN (COL./100ML)	48

REMARKS

A SMALL URBAN LAKE NEAR THE CITY OF BELLEVUE. EMERSED PLANTS COVERED THE SHORELINE AND THE LITTORAL BOTTOM IS MOSTLY MUCK. LAND CLEARING WAS IN PROGRESS NEAR THE EAST SIDE OF THE LAKE.



Sturtevant Lake, King County. Bathymetric map from
U.S. Geological Survey, July 20, 1973.
Aerial photo, May 17, 1973.

THOMPSON LAKE

KING COUNTY

LATITUDE 47°27'27" LONGITUDE 121°35' 9" T23N-R10E-19
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

-----		-----	
DRAINAGE AREA	0.37 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	3650. FT	NUMBER OF NEARSHORE HOMES	0
LAKE AREA	42. ACRES	LAND USE IN DRAINAGE BASIN	
LAKE VOLUME	870. ACRE-FT	RESIDENTIAL URBAN	0 %
MEAN DEPTH	21. FT	RESIDENTIAL SUBURBAN	0 %
MAXIMUM DEPTH	53. FT	AGRICULTURAL	0 %
SHORELINE LENGTH	1.4 MI	FOREST OR UNPRODUCTIVE	82 %
SHORELINE CONFIGURATION	1.6	LAKE SURFACE	18 %
DEVELOPMENT OF VOLUME	0.39		
BOTTOM SLOPE	3.5 %	PUBLIC BOAT ACCESS TO LAKE	--
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT		

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

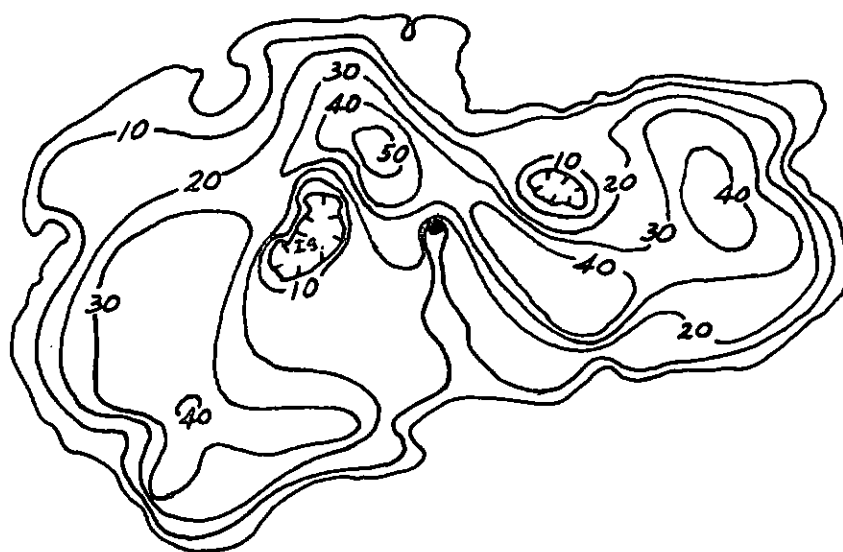
SAMPLE SITE	1
DATE	7/16/73
TIME	1300 1305
DEPTH (FT)	3. 30.
TOTAL NITRATE (N)	0.02 0.02
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.03 0.03
TOTAL ORGANIC NITROGEN (N)	-- --
TOTAL PHOSPHORUS (P)	0.002 0.002
TOTAL ORTHOPHOSPHATE (P)	0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS)	9 9
WATER TEMPERATURE (DEG C)	16.7 8.9
COLOR (PLATINUM-COBALT UNITS)	0 0
SECCHI-DISC VISIBILITY (FT)	>34
DISSOLVED OXYGEN	9.0 10.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	8/28/74
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

 NO AQUATIC PLANTS WERE OBSERVED. THE LAKE HAS SEVERAL ISLANDS.



N



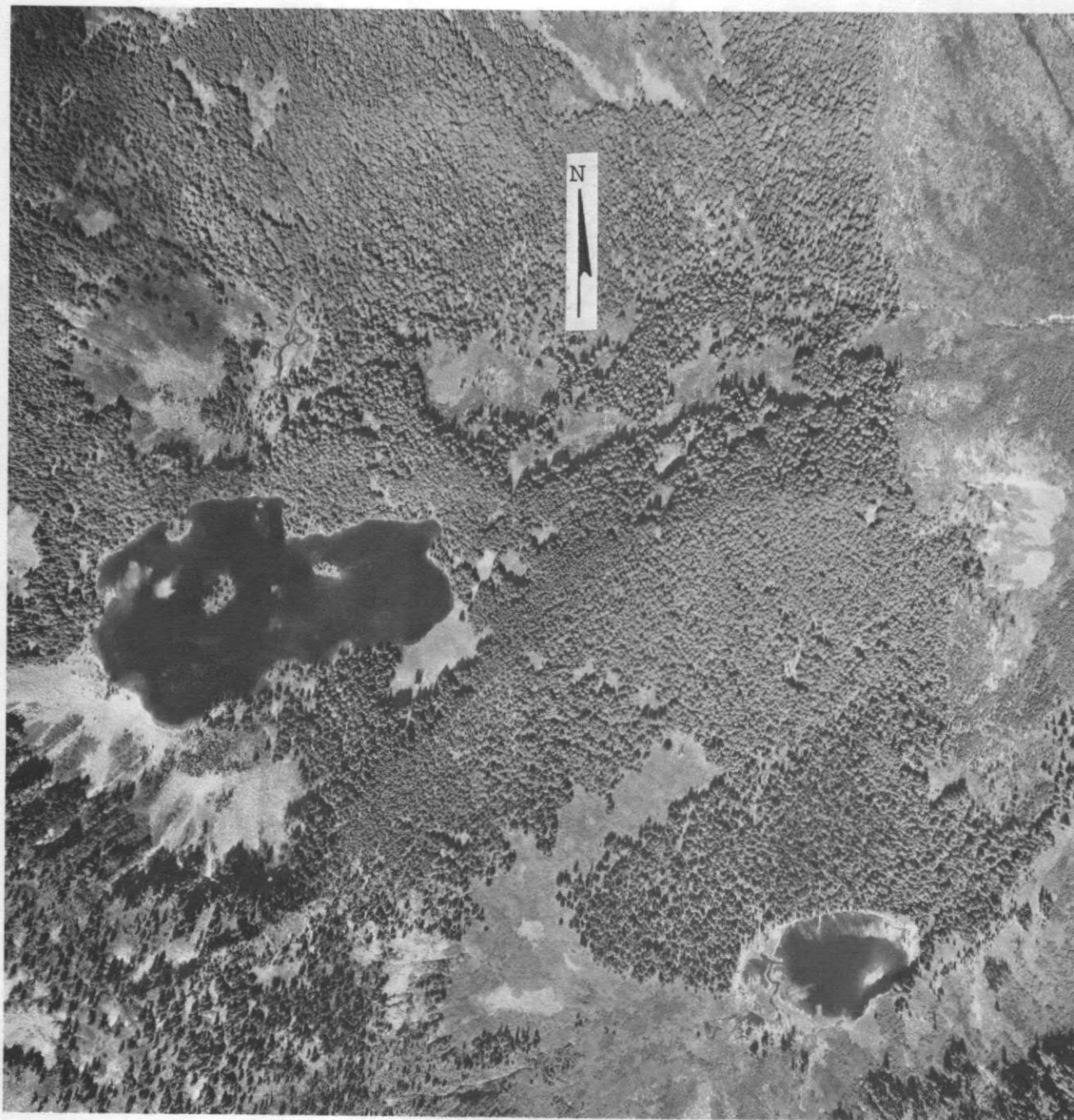
0 500 1000 FEET

EXPLANATION

—20—

Line of equal
water depth
Interval 10 feet

Thompson Lake, King County. From U.S. Geological Survey, September 5, 1974.



Thompson Lake, King County. July 23, 1970. Approx. scale 1:12,000.

TROUT LAKE

KING COUNTY

LATITUDE 47°15'54" LONGITUDE 122°16'39" T21N-R4E-34
 PUYALLUP RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.53 SQ MI
 ALTITUDE 340. FT
 LAKE AREA 18. ACRES
 LAKE VOLUME 310. ACRE-FT
 MEAN DEPTH 17. FT
 MAXIMUM DEPTH 27. FT
 SHORELINE LENGTH 0.62 MI
 SHORELINE CONFIGURATION 1.0
 DEVELOPMENT OF VOLUME 0.64
 BOTTOM SLOPE 2.7 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 90 %
 NUMBER OF NEARSHORE HOMES 27
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 6 %
 AGRICULTURAL 27 %
 FOREST OR UNPRODUCTIVE 65 %
 LAKE SURFACE 2 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

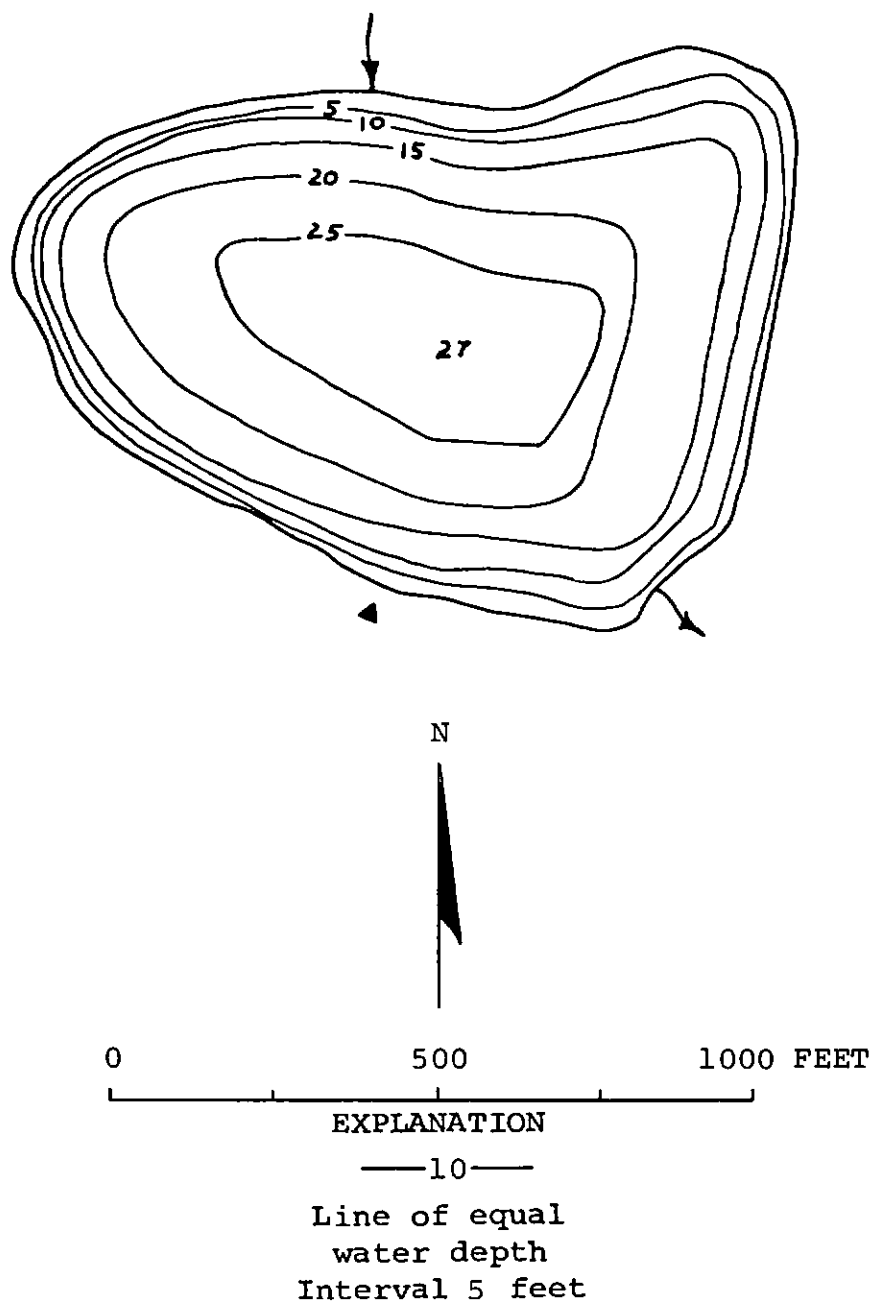
 DATE 8/ 8/73
 TIME 1645 1650
 DEPTH (FT) 3. 22.
 TOTAL NITRATE (N) 0.07 0.02
 TOTAL NITRITE (N) 0.01 0.01
 TOTAL AMMONIA (N) 0.07 0.74
 TOTAL ORGANIC NITROGEN (N) 0.49 0.66
 TOTAL PHOSPHORUS (P) 0.012 0.072
 TOTAL ORTHOPHOSPHATE (P) 0.005 0.052
 SPECIFIC CONDUCTANCE (MICROMHOS) 81 93
 WATER TEMPERATURE (DEG C) 22.3 6.1
 COLOR (PLATINUM-COBALT UNITS) 40 100
 SECCHI-DISC VISIBILITY (FT) 9
 DISSOLVED OXYGEN 8.7 0.1

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 8/73
 TIME 1700
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 32
 FECAL COLIFORM, MAXIMUM (COL./100ML) 153
 FECAL COLIFORM, MEAN (COL./100ML) 74

REMARKS

 EMERSED PLANTS COVERED THE SHORELINE IN A THIN BAND. THE WATER IS A DARK
 TEA-COLOR. THE LITTORAL BOTTOM IS MUCK. A MILD ALGAL BLOOM WAS OBSERVED
 AND HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION.



Trout Lake, King County. From Washington Department of Game, February 2, 1952.



Trout Lake, King County. April 30, 1973. Approx. scale 1:4800.

TUSCOHATCHIE LAKE

KING COUNTY

LATITUDE 47°26'22" LONGITUDE 121°29'57" T23N-R10E-35
 SNOHOMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.76 SQ MI
 ALTITUDE 3420. FT
 LAKE AREA 26. ACRES
 LAKE VOLUME 1700. ACRE-FT
 MEAN DEPTH 63. FT
 MAXIMUM DEPTH 130. FT
 SHORELINE LENGTH 0.90 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.47
 BOTTOM SLOPE 11. %
 BASIN GEOLOGY IGNEOUS
 INFLOW PERENNIAL
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 91 %
 LAKE SURFACE 9 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

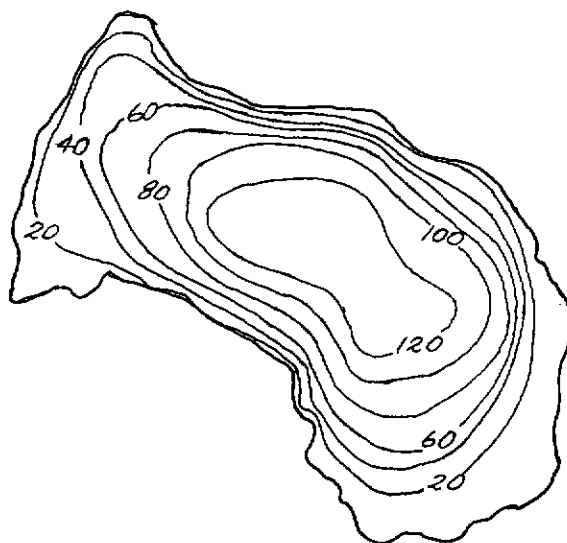
 SAMPLE SITE 1
 DATE 8/28/74
 TIME 1630 1635
 DEPTH (FT) 3. 125.
 TOTAL NITRATE (N) 0.02 0.06
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.03
 TOTAL ORGANIC NITROGEN (N) 0.10 0.10
 TOTAL PHOSPHORUS (P) 0.002 0.004
 TOTAL ORTHOPHOSPHATE (P) 0.000 0.000
 SPECIFIC CONDUCTANCE (MICROMHOS) 14 15
 WATER TEMPERATURE (DEG C) 15.3 4.0
 COLOR (PLATINUM-COBALT UNITS) 0 0
 SECCHI-DISC VISIBILITY (FT) 40
 DISSOLVED OXYGEN 9.2 5.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/28/74
 TIME 1600
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 THE LAKE HAS A LARGE INFLOW FROM UPPER TUSCOHATCHIE LAKE.



N



0 500 1000 FEET

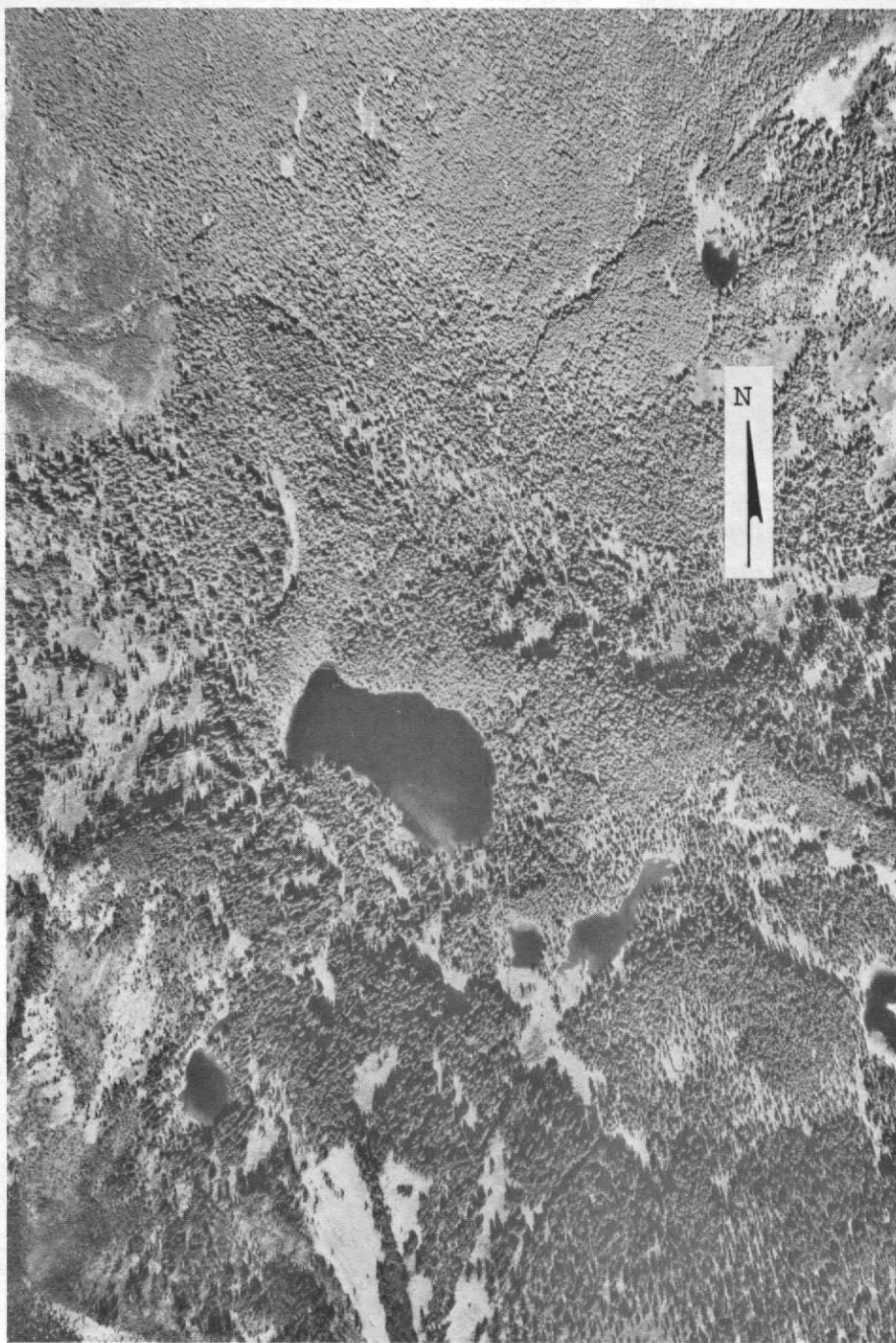


EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Tuscohatchie Lake, King County. From U.S. Geological Survey,
September 17, 1974.



Tuscohatchie Lake, King County. August 12, 1970. Approx. scale 1:16,000.

UNION LAKE

KING COUNTY

LATITUDE 47°38'49" LONGITUDE 122°20'45" T25N-R4E-19

PUGET SOUND BASIN

PHYSICAL DATA

DRAINAGE AREA	600. SQ MI
ALTITUDE	14. FT
LAKE AREA	580. ACRES
LAKE VOLUME	20000. ACRE-FT
MEAN DEPTH	34. FT
MAXIMUM DEPTH	50. FT
SHORELINE LENGTH	6.1 MI
SHORELINE CONFIGURATION	1.8
DEVELOPMENT OF VOLUME	0.0
BOTTOM SLOPE	0.88 %
BASIN GEOLOGY	SED./META.
INFLOW	PERENNIAL
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	NOT DETERMINED
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1
DATE	9/ 6/74
TIME	1445 1450
DEPTH (FT)	3. 36.
TOTAL NITRATE (N)	0.01 0.05
TOTAL NITRITE (N)	0.00 0.01
TOTAL AMMONIA (N)	0.03 0.38
TOTAL ORGANIC NITROGEN (N)	0.21 0.15
TOTAL PHOSPHORUS (P)	0.013 0.15
TOTAL ORTHOPHOSPHATE (P)	0.003 0.13
SPECIFIC CONDUCTANCE (MICROMHOS)	125 850
WATER TEMPERATURE (DEG C)	21.8 18.2
COLOR (PLATINUM-COBALT UNITS)	5 5
SECCHI-DISC VISIBILITY (FT)	9
DISSOLVED OXYGEN	9.0 0.3

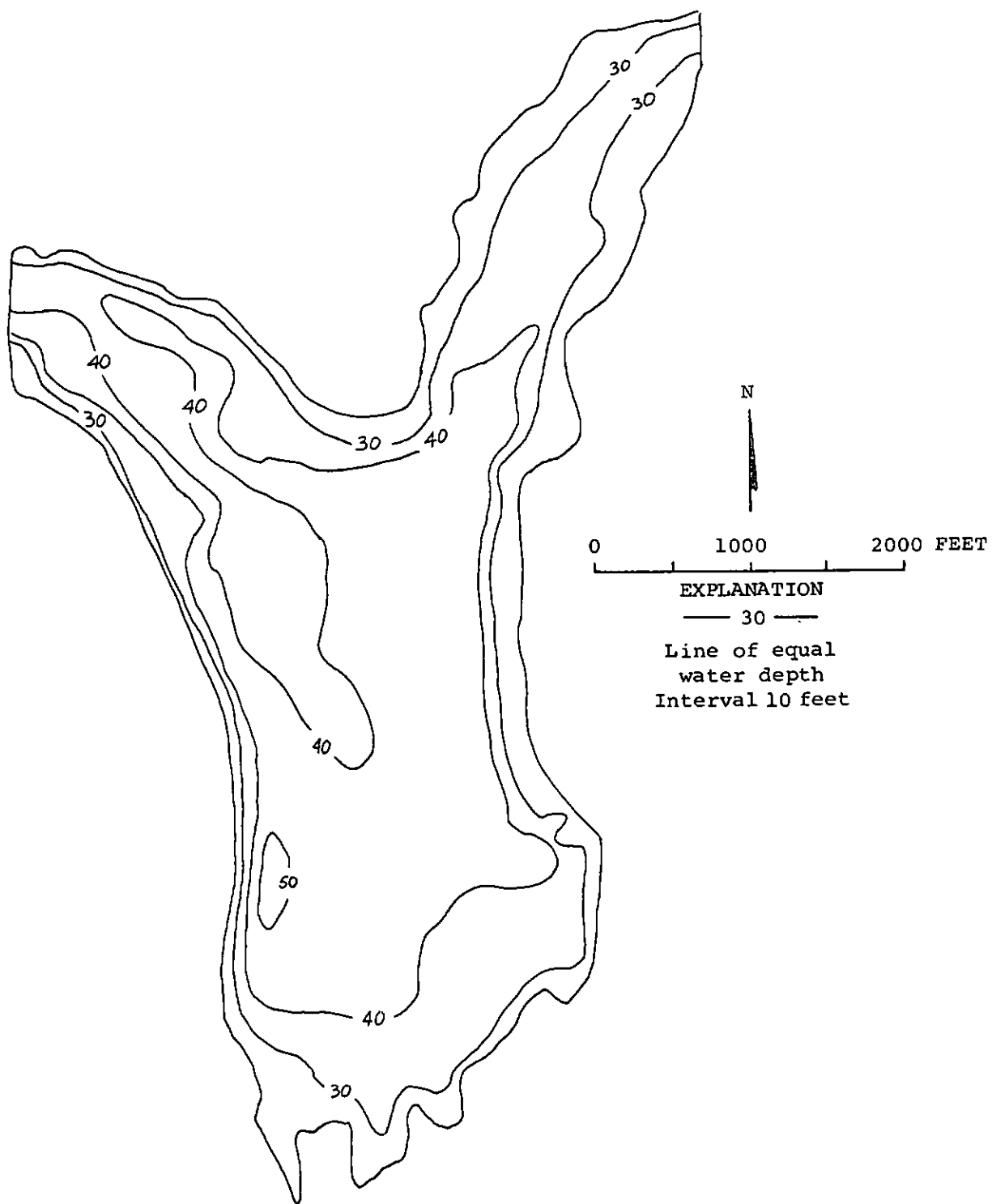
LAKE SHORELINE COVERED BY EMERSED PLANTS
 LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
 NONE OR <1 %

DATE	9/ 6/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LAKE IS PART OF THE WASHINGTON SHIP CANAL AND MOST OF THE SHORELINE IS USED FOR COMMERCIAL AND INDUSTRIAL PURPOSES. THE LAKE HAS HEAVY BOAT TRAFFIC. THE BATHYMETRIC MAP WAS CONTOURED FROM DEPTH SOUNDINGS THAT WERE SURVEYED BY THE ARMY CORP OF ENGINEERS. POINT-SOURCE DISCHARGES TO LAKE UNION ARE LISTED BY THE DEPT. OF ECOLOGY WASTEWATER INVENTORY, BUT NO DATA ARE AVAILABLE ON WASTEWATER CONSTITUENTS. LAND USE DATA ARE NOT GIVEN BECAUSE OF THE VERY LARGE DRAINAGE BASIN.



Union Lake, King County. From U.S. Corp of Engineers, date unknown.



Union Lake, King County. May 15, 1970. Approx. scale 1:12,000.

WALKER LAKE

KING COUNTY

LATITUDE 47°15'47" LONGITUDE 121°54'25" T21N-R7E-34
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.49 SQ MI
ALTITUDE	1140. FT
LAKE AREA	12. ACRES
LAKE VOLUME	370. ACRE-FT
MEAN DEPTH	31. FT
MAXIMUM DEPTH	54. FT
SHORELINE LENGTH	0.55 MI
SHORELINE CONFIGURATION	1.1
DEVELOPMENT OF VOLUME	0.57
BOTTOM SLOPE	6.6 %
BASIN GEOLOGY	SED./META.
INFLOW	NONE VISIBLE
OUTFLOW CHANNEL	ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	100 %
NUMBER OF NEARSHORE HOMES	29
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	10 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	86 %
LAKE SURFACE	4 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

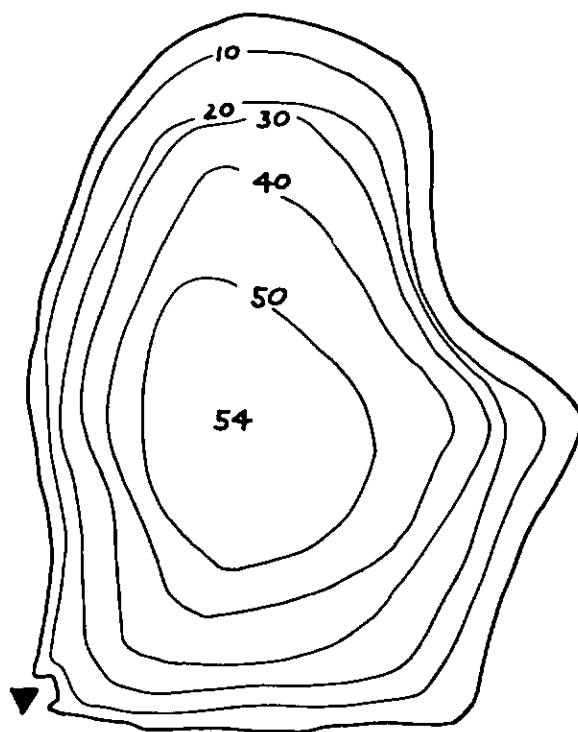
SAMPLE SITE	1
DATE	6/26/72
TIME	1340 1350
DEPTH (FT)	3. 43.
DISSOLVED NITRATE (N)	0.06 0.25
TOTAL NITRITE (N)	0.00 0.02
TOTAL AMMONIA (N)	0.05 0.20
TOTAL ORGANIC NITROGEN (N)	0.26 0.18
TOTAL PHOSPHORUS (P)	0.020 0.040
DISSOLVED ORTHOPHOSPHATE (P)	0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS)	30 35
WATER TEMPERATURE (DEG C)	15.1 4.8
COLOR (PLATINUM-COBALT UNITS)	20 25
SECCHI-DISC VISIBILITY (FT)	51
DISSOLVED OXYGEN	10.0 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/26/72
TIME	1405
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	6
FECAL COLIFORM, MAXIMUM (COL./100ML)	12
FECAL COLIFORM, MEAN (COL./100ML)	13

REMARKS

IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE
PLANT SURVEY WAS MADE ON OCTOBER 13, 1972.



N



0 500 1000 FEET

EXPLANATION

—20—

Line of equal
water depth
Interval 10 feet

Walker Lake, King County. From Washington Department of Game, February 15, 1953.



Walker Lake, King County. August 9, 1972. Approx. scale 1:4100.

WEBSTER LAKE

KING COUNTY

LATITUDE 47°25'53" LONGITUDE 122° 2' 1" T23N-R6E-34
CEDAR RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.11 SQ MI
ALTITUDE 540. FT
LAKE AREA 9. ACRES
LAKE VOLUME 130. ACRE-FT
MEAN DEPTH 13. FT
MAXIMUM DEPTH 20. FT
SHORELINE LENGTH 0.54 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.67
BOTTOM SLOPE 2.8 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 22 %
NUMBER OF NEARSHORE HOMES 3
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 87 %
LAKE SURFACE 13 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

DATE 7/ 6/73
TIME 1505 1510
DEPTH (FT) 3. 13.
TOTAL NITRATE (N) 0.37 0.31
TOTAL NITRITE (N) 0.01 0.00
TOTAL AMMONIA (N) 0.08 0.12
TOTAL ORGANIC NITROGEN (N) 0.04 0.00
TOTAL PHOSPHORUS (P) 0.015 0.009
TOTAL ORTHOPHOSPHATE (P) 0.002 0.004
SPECIFIC CONDUCTANCE (MICROMHOS) 35 39
WATER TEMPERATURE (DEG C) 19.9 11.3
COLOR (PLATINUM-COBALT UNITS) 25 30
SECCHI-DISC VISIBILITY (FT) 7
DISSOLVED OXYGEN 9.0 3.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/ 6/73
TIME 1515
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 3
FECAL COLIFORM, MAXIMUM (COL./100ML) 7
FECAL COLIFORM, MEAN (COL./100ML) 5

REMARKS

THE WEST SIDE OF THE LAKE HAS MARSH VEGETATION. THE WATER HAS A SLIGHT BROWN TEA-COLOR.



Webster Lake, King County. Bathymetric map from
U.S. Geological Survey, July 6, 1973.
Aerial photo, May 17, 1973.

WILDCAT, UPPER LAKE

KING COUNTY

LATITUDE 47°29'14" LONGITUDE 121°29' 9" T23N-R10E-11
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.46 SQ MI
ALTITUDE 4218. FT
LAKE AREA 48. ACRES
LAKE VOLUME 3600. ACRE-FT
MEAN DEPTH 73. FT
MAXIMUM DEPTH 190. FT
SHOELINE LENGTH 1.4 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.38
BOTTOM SLOPE 12. %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 84 %
LAKE SURFACE 16 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 8/29/74
TIME 1100 1105
DEPTH (FT) 3. 125.
TOTAL NITRATE (N) 0.01 0.02
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.01 0.02
TOTAL ORGANIC NITROGEN (N) 0.07 0.08
TOTAL PHOSPHORUS (P) 0.000 0.000
TOTAL ORTHOPHOSPHATE (P) 0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS) 10 6
WATER TEMPERATURE (DEG C) 10.8 4.0
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 59
DISSOLVED OXYGEN 9.8 8.0

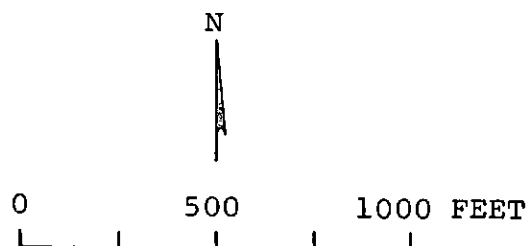
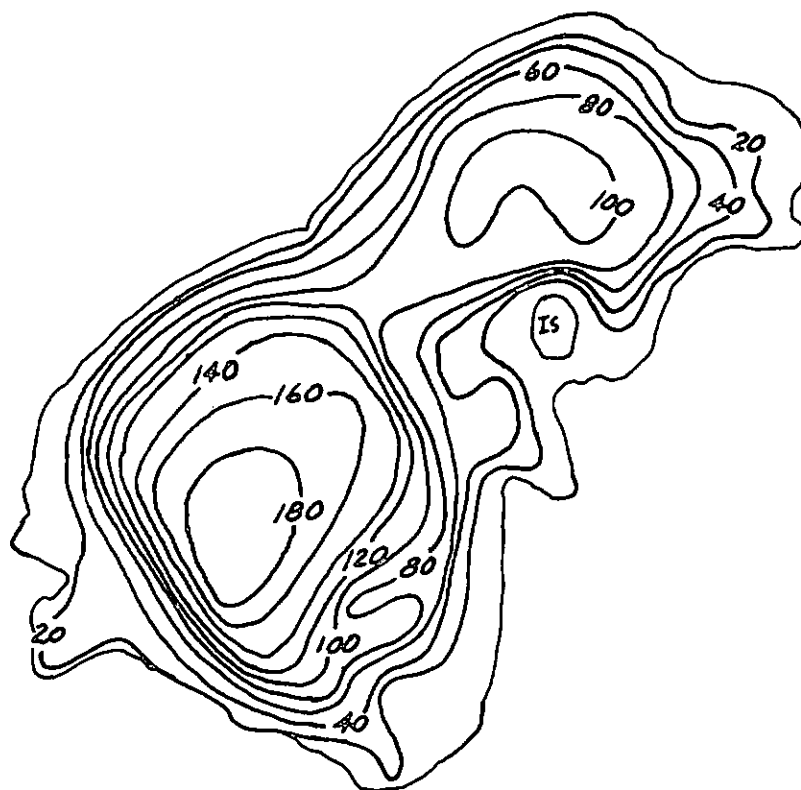
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE 8/29/74
TIME 1030
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

NO EMERSED OR SUBMERSED PLANTS WERE OBSERVED.



EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Wildcat, Upper Lake, King County. From U.S. Geological Survey, September 7, 1974.



Wildcat, Upper Lake, King County. August 21, 1970. Approx. scale 1:12,000.

WILDERNESS LAKE

KING COUNTY

LATITUDE 47°22'12" LONGITUDE 122° 2' 4" T22N-R6E-27
GREEN-DUWAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.66 SQ MI
ALTITUDE 470. FT
LAKE AREA 69. ACRES
LAKE VOLUME 1400. ACRE-FT
MEAN DEPTH 21. FT
MAXIMUM DEPTH 38. FT
SHORELINE LENGTH 1.8 MI
SHORELINE CONFIGURATION 1.5
DEVELOPMENT OF VOLUME 0.54
BOTTOM SLOPE 7.7 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 48 %
NUMBER OF NEARSHORE HOMES 50
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 2 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 82 %
LAKE SURFACE 16 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

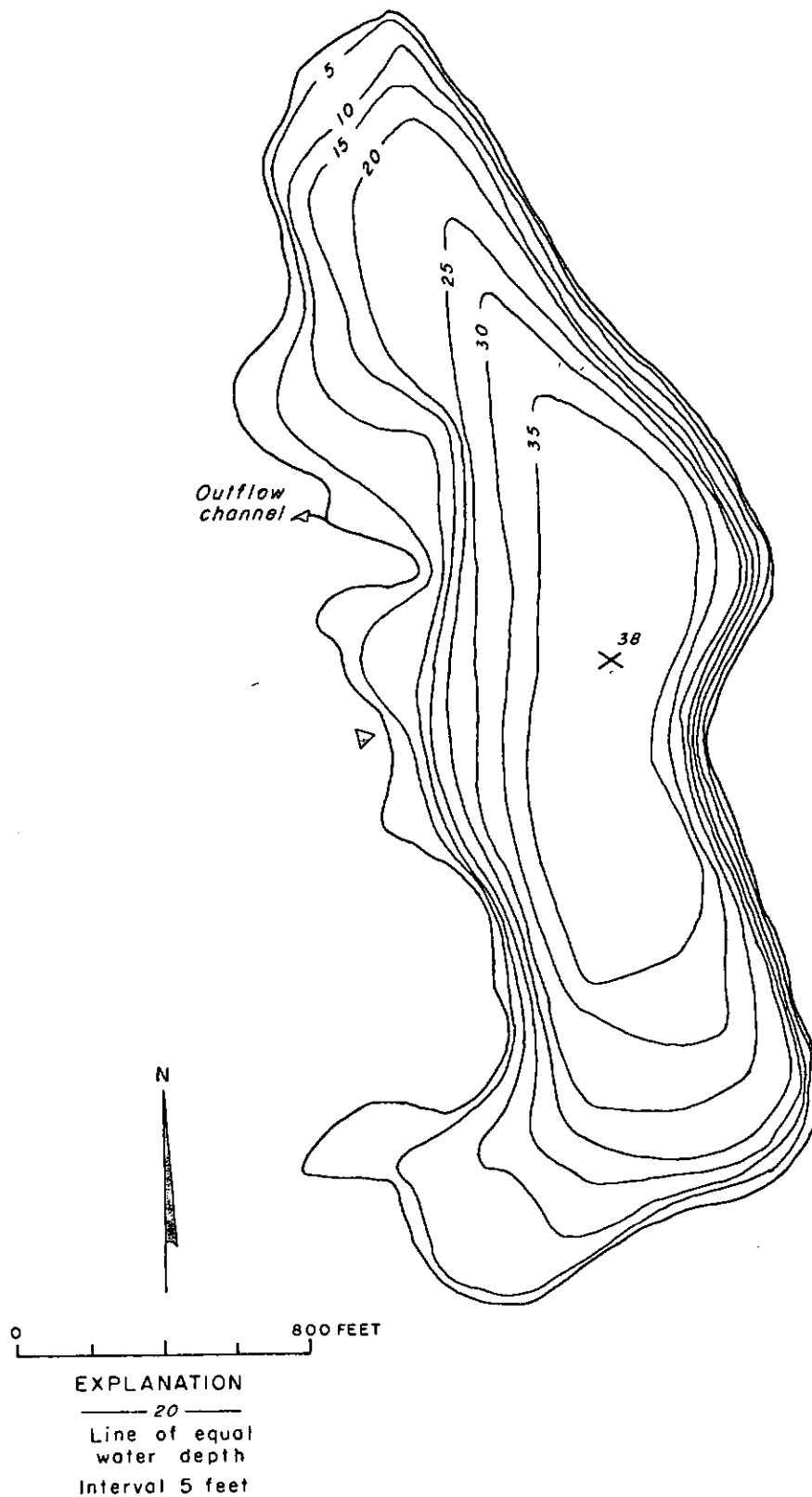
1
DATE 6/29/71
TIME 930 935
DEPTH (FT) 3. 29.
DISSOLVED NITRATE (N) 0.05 0.02
TOTAL NITRITE (N) -- --
TOTAL AMMONIA (N) 0.03 0.23
TOTAL ORGANIC NITROGEN (N) 0.02 0.01
TOTAL PHOSPHORUS (P) 0.010 0.080
DISSOLVED ORTHOPHOSPHATE (P) 0.010 0.040
SPECIFIC CONDUCTANCE (MICROMHOS) 65 79
WATER TEMPERATURE (DEG C) 17.0 9.0
COLOR (PLATINUM-COBALT UNITS) -- --
SECCHI-DISC VISIBILITY (FT) 18
DISSOLVED OXYGEN -- --

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 9/ 4/74
TIME 1050
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 3
FECAL COLIFORM, MAXIMUM (COL./100ML) 4
FECAL COLIFORM, MEAN (COL./100ML) 4

REMARKS

A PARK IS LOCATED ON THE WEST SHORE OF THE LAKE. DURING THE SUMMER THE LAKE RECEIVES HEAVY RECREATIONAL USE. IN 1971 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 10, 1971.



Wilderness Lake, King County. From Washington Department of Game, July 25, 1952.



Wilderness Lake, King County. July 14, 1971. Approx. scale 1:8200.

**SNOHOMISH
COUNTY**



ARMSTRONG LAKE

SNOHOMISH COUNTY

LATITUDE 48°13'48" LONGITUDE 122° 7'28" T32N-R5E-35
 STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.57 SQ MI
ALTITUDE	135. FT
LAKE AREA	30. ACRES
LAKE VOLUME	450. ACRE-FT
MEAN DEPTH	15. FT
MAXIMUM DEPTH	24. FT
SHORELINE LENGTH	1.1 MI
SHORELINE CONFIGURATION	1.4
DEVELOPMENT OF VOLUME	0.63
BOTTOM SLOPE	1.9 %
BASIN GEOLOGY	SED./META.
INFLOW	NONE VISIBLE
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	34 %
NUMBER OF NEARSHORE HOMES	8
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	3 %
AGRICULTURAL	11 %
FOREST OR UNPRODUCTIVE	78 %
LAKE SURFACE	8 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

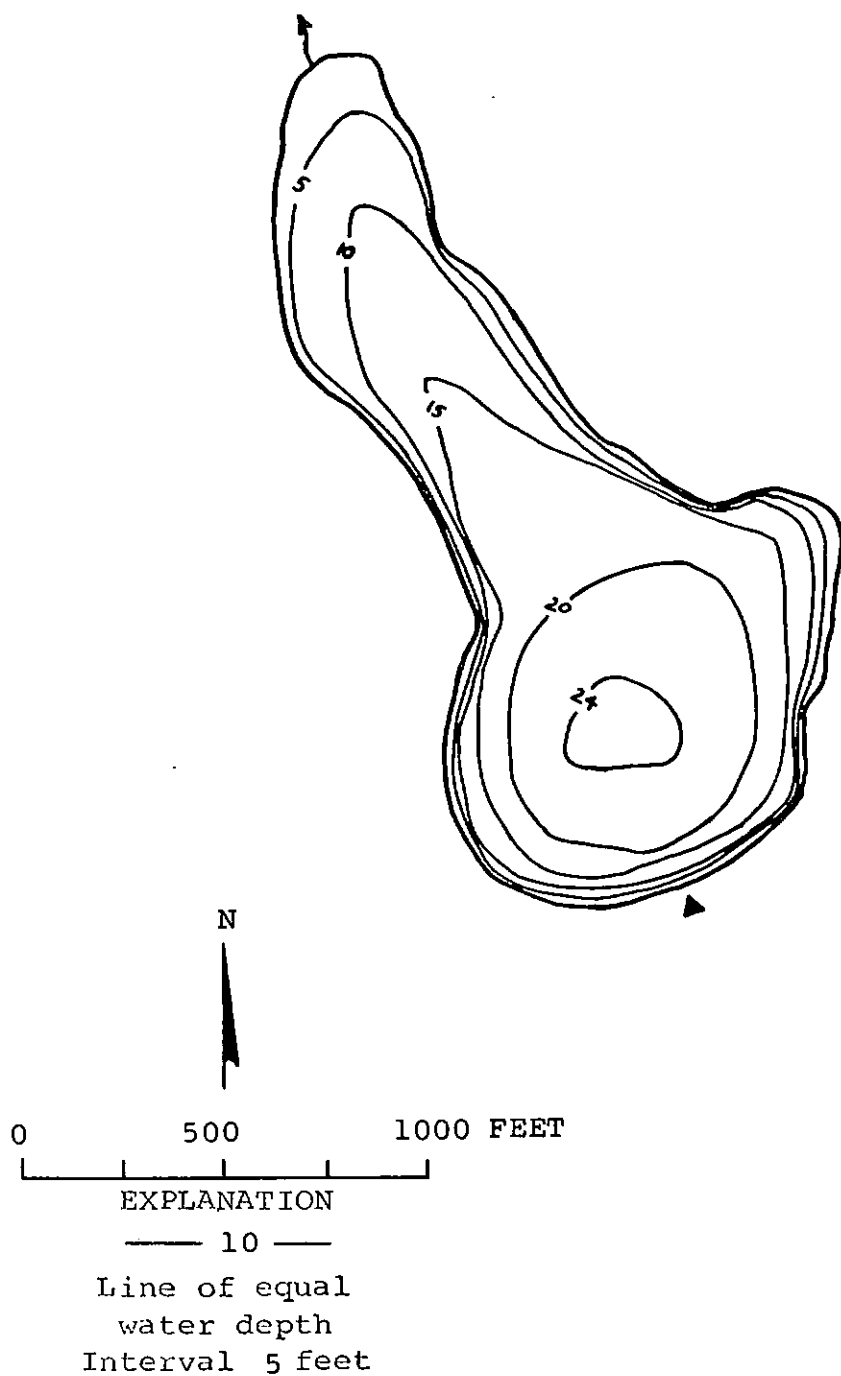
SAMPLE SITE	1	
DATE	8/13/73	
TIME	1310	1320
DEPTH (FT)	3.	22.
TOTAL NITRATE (N)	0.01	0.02
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.06	1.6
TOTAL ORGANIC NITROGEN (N)	0.49	0.80
TOTAL PHOSPHORUS (P)	0.018	0.40
TOTAL ORTHOPHOSPHATE (P)	0.008	0.22
SPECIFIC CONDUCTANCE (MICROMHOS)	57	69
WATER TEMPERATURE (DEG C)	21.0	5.8
COLOR (PLATINUM-CORALT UNITS)	10	40
SECCHI-DISC VISIBILITY (FT)	9	
DISSOLVED OXYGEN	8.5	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	8/13/73
TIME	1330
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

BRUSH AND TREES OVERHANG THE WATER AND LOGS AND WOOD DEBRIS LITTER THE SHORE LOCALLY. A SLIGHT HYDROGEN SULFIDE ODOR WAS DETECTED IN THE HYPOLIMNION.



Armstrong Lake, Snohomish County. From Washington
Department of Game, July 25, 1952.



Armstrong Lake, Snohomish County. July 15, 1973. Approx. scale 1:4800.

LATITUDE 47°46'21" LONGITUDE 122°19'25" T27N-R4E-32
LAKE WASHINGTON BASIN

PHYSICAL DATA

DRAINAGE AREA 5.09 SQ MI
ALTITUDE 278. FT
LAKE AREA 100. ACRES
LAKE VOLUME 1500. ACRE-FT
MEAN DEPTH 15. FT
MAXIMUM DEPTH 35. FT
SHORELINE LENGTH 1.6 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.42
BOTTOM SLOPE 1.5 %
BASIN GEOLOGY SED./META.
INFLOW PERENNIAL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 37 %
NUMBER OF NEARSHORE HOMES 40
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 89 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 8 %
LAKE SURFACE 3 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

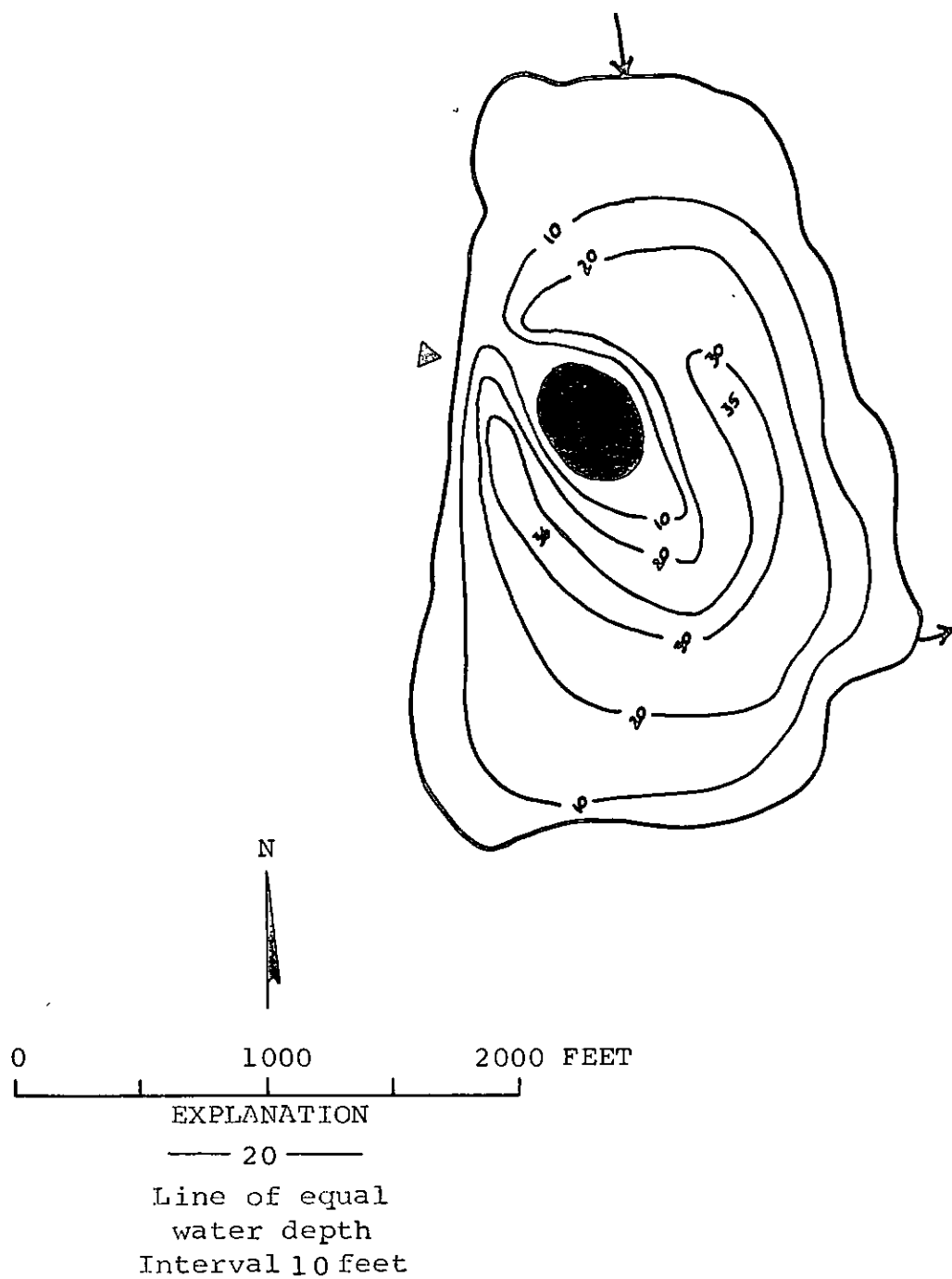
SAMPLE SITE 1
DATE 7/25/73
TIME 1610 1620
DEPTH (FT) 3. 28.
TOTAL NITRATE (N) 0.12 0.09
TOTAL NITRITE (N) 0.01 0.04
TOTAL AMMONIA (N) 0.14 0.43
TOTAL ORGANIC NITROGEN (N) 0.31 0.47
TOTAL PHOSPHORUS (P) 0.019 0.021
TOTAL ORTHOPHOSPHATE (P) 0.003 0.006
SPECIFIC CONDUCTANCE (MICROMHOS) 170 167
WATER TEMPERATURE (DEG C) 21.2 11.0
COLOR (PLATINUM-CORAL TUNITS) 10 20
SECCHI-DISC VISIBILITY (FT) 10
DISSOLVED OXYGEN 9.8 0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/25/73
TIME 1450
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 5
FECAL COLIFORM, MAXIMUM (COL./100ML) 17
FECAL COLIFORM, MEAN (COL./100ML) 12

REMARKS

AN URBAN LAKE NORTH OF SEATTLE. THE LAKE IS FED BY HALL LAKE AND DRAINS VIA MCALEER CREEK TO LAKE WASHINGTON. A GOLF COURSE IS LOCATED ON THE NORTH END OF THE LAKE NEAR THE INFLOW. A LOW-DENSITY ALGAL BLOOM WAS OBSERVED AND HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. THE LITTORAL BOTTOM IS MOSTLY MUCK. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72. A LAKE-STAGE RECORDER IS MAINTAINED ON THE LAKE BY THE U.S. GEOLOGICAL SURVEY. THE OUTFLOW FROM THE LAKE IS CONTROLLED BY FLASHBOARDS.



Ballinger Lake, Snohomish County. From Washington
Department of Game, January 29, 1957.



Ballinger Lake, Snohomish County, May 13, 1973. Approx. scale 1:4800.

BLACKMANS LAKE

SNOHOMISH COUNTY

LATITUDE 47°55'47" LONGITUDE 122° 5'32" T28N-R6E-7
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.81 SQ MI
ALTITUDE 140. FT
LAKE AREA 57. ACRES
LAKE VOLUME 800. ACRE-FT
MEAN DEPTH 14. FT
MAXIMUM DEPTH 29. FT
SHORELINE LENGTH 1.5 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.49
BOTTOM SLOPE 1.6 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 56 %
NUMBER OF NEARSHORE HOMES 34
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 8 %
AGRICULTURAL 69 %
FOREST OR UNPRODUCTIVE 12 %
LAKE SURFACE 11 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 8/ 3/73
TIME 1600 1605
DEPTH (FT) 3. 22.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.06 0.26
TOTAL ORGANIC NITROGEN (N) 0.28 0.43
TOTAL PHOSPHORUS (P) 0.008 0.059
TOTAL ORTHOPHOSPHATE (P) 0.003 0.002
SPECIFIC CONDUCTANCE (MICROMHOS) 77 81
WATER TEMPERATURE (DEG C) 23.1 14.8
COLOR (PLATINUM-COBALT UNITS) 15 40
SECCHI-DISC VISIBILITY (FT) 15
DISSOLVED OXYGEN 8.8 0.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 3/73
TIME 1610
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 36
FECAL COLIFORM, MEAN (COL./100ML) 13

REMARKS

THE LAKE IS LOCATED ON THE OUTSKIRTS OF THE TOWN OF SNOHOMISH. THE LITTORAL BOTTOM HAD DENSE PATCHES OF SUBMERSED MACROPHYTES (PONDWEED AND ELODEA). THE LITTORAL BOTTOM IS MOSTLY MUCK.



EXPLANATION

— 10 —
Line of equal
water depth
Interval 5 feet

Blackmans Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, July 18, 1973.
Aerial photo, May 13, 1973.

BLANCA LAKE

SNOHOMISH COUNTY

LATITUDE 47°56' 7" LONGITUDE 121°20'30" T28N-R11E-1
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 2.68 SQ MI
ALTITUDE 3972. FT
LAKE AREA 150. ACRES
LAKE VOLUME 25000. ACRE-FT
MEAN DEPTH 170. FT
MAXIMUM DEPTH 250. FT
SHORELINE LENGTH 2.2 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.67
BOTTOM SLOPE 8.8 %
BASIN GEOLOGY IGNEOUS
INFLOW PERENNIAL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 91 %
LAKE SURFACE 9 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

DATE 7/24/73
TIME 1200 1210
DEPTH (FT) 3. 230.
TOTAL NITRATE (N) 0.04 0.06
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.02 0.02
TOTAL ORGANIC NITROGEN (N) 0.01 0.02
TOTAL PHOSPHORUS (P) 0.004 0.025
TOTAL ORTHOPHOSPHATE (P) 0.004 0.004
SPECIFIC CONDUCTANCE (MICROMHOS) 18 30
WATER TEMPERATURE (DEG C) 8.0 4.0
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 5
DISSOLVED OXYGEN 10.2 5.8

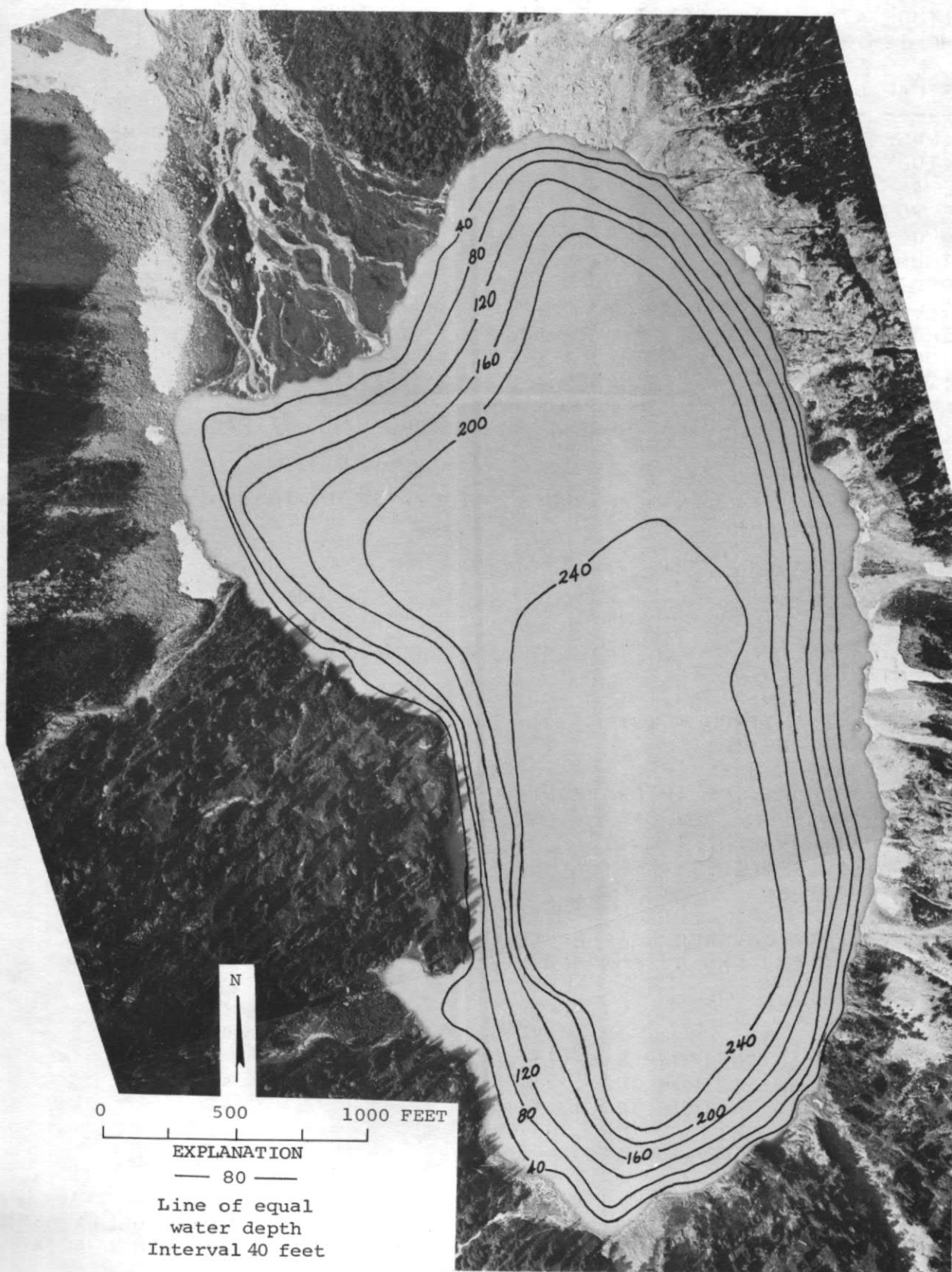
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE 7/24/73
TIME 1200
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

A DEEP U-SHAPED LAKE FED BY THE COLUMBIA GLACIER. A LARGE DELTA DEPOSIT
HAS FORMED IN THE LAKE. THE WATER IS A TURQUOISE COLOR FROM GLACIAL SILT.



Blanca Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 8, 1973.
Aerial photo, August 3, 1973.

BOARDMAN LAKE

SNOHOMISH COUNTY

LATITUDE 48° 1'25" LONGITUDE 121°41'10" T29N-R9E-5
 STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.81 SQ MI
 ALTITUDE 2981. FT
 LAKE AREA 42. ACRES
 LAKE VOLUME 2700. ACRE-FT
 MEAN DEPTH 64. FT
 MAXIMUM DEPTH 110. FT
 SHORELINE LENGTH 1.1 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.61
 BOTTOM SLOPE 6.9 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 92 %
 LAKE SURFACE 8 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

 SAMPLE SITE 1
 DATE 8/ 2/73
 TIME 1245 1250
 DEPTH (FT) 3. 85.
 TOTAL NITRATE (N) 0.02 0.06
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.04
 TOTAL ORGANIC NITROGEN (N) 0.04 0.03
 TOTAL PHOSPHORUS (P) 0.003 0.006
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.004
 SPECIFIC CONDUCTANCE (MICROMHOS) 11 11
 WATER TEMPERATURE (DEG C) 21.0 3.8
 COLOR (PLATINUM-CORALT UNITS) 25 25
 SECCHI-DISC VISIRILITY (FT) 19
 DISSOLVED OXYGEN 8.0 7.9

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/ 2/73
 TIME 1300
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 1
 FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

 THE LAKE IS FED FROM ISLAND LAKE. SMALL PATCHES OF EMERSED AND SUBMERSED MACROPHYTES WERE OBSERVED.



0 500 1000 FEET

EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Boardman Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 15, 1973.
Aerial photo, August 2, 1973.

BOARDMAN EAST LAKE

SNOHOMISH COUNTY

LATITUDE 48° 0'53" LONGITUDE 121°39'41" T29N-R9E-9
STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.83 SQ MI
ALTITUDE	3370. FT
LAKE AREA	22. ACRES
LAKE VOLUME	680. ACRE-FT
MEAN DEPTH	31. FT
MAXIMUM DEPTH	79. FT
SHORELINE LENGTH	1.1 MI
SHORELINE CONFIGURATION	1.5
DEVELOPMENT OF VOLUME	0.39
BOTTOM SLOPE	7.2 %
BASIN GEOLOGY	SED./META.
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	0 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	95 %
LAKE SURFACE	5 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1
DATE	8/ 2/74
TIME	1430 1435
DEPTH (FT)	3. 69.
TOTAL NITRATE (N)	0.02 0.04
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.05 0.05
TOTAL ORGANIC NITROGEN (N)	0.01 0.03
TOTAL PHOSPHORUS (P)	0.003 0.005
TOTAL ORTHOPHOSPHATE (P)	0.002 0.002
SPECIFIC CONDUCTANCE (MICROMHOS)	6 6
WATER TEMPERATURE (DEG C)	3.0 2.0
COLOR (PLATINUM-COBALT UNITS)	10 10
SECCHI-DISC VISIBILITY (FT)	45
DISSOLVED OXYGEN	11.4 11.2

LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE	8/ 2/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS FED FROM TWO SMALL ALPINE LAKES. MOST OF THE LAKE WAS FROZEN AT THE TIME OF THE SAMPLING.



N



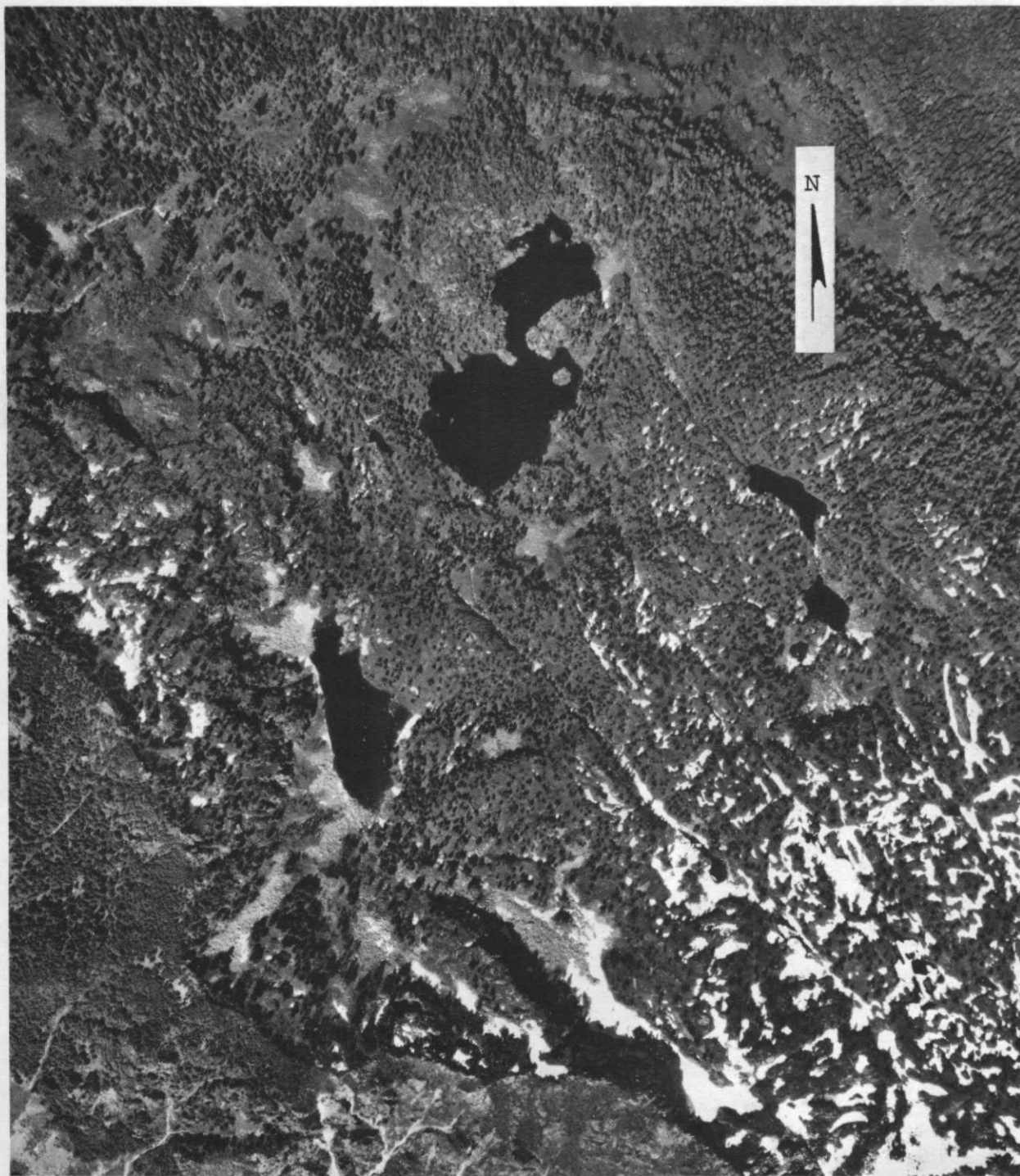
0 500 1000 FEET

EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Boardman, East Lake, Snohomish County.
From U.S. Geological Survey, September 15, 1973.



Boardman, East Lake, Snohomish County. July 18, 1969. Approx. scale 1:12,000.

LATITUDE 48° 2'55" LONGITUDE 121°58'21" T30N-R6E-36
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 1.41 SQ MI
ALTITUDE 563. FT
LAKE AREA 110. ACRES
LAKE VOLUME 3700. ACRE-FT
MEAN DEPTH 35. FT
MAXIMUM DEPTH 79. FT
SHORELINE LENGTH 2.0 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.44
BOTTOM SLOPE 3.3 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 83 %
NUMBER OF NEARSHORE HOMES 81
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 10 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 78 %
LAKE SURFACE 12 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

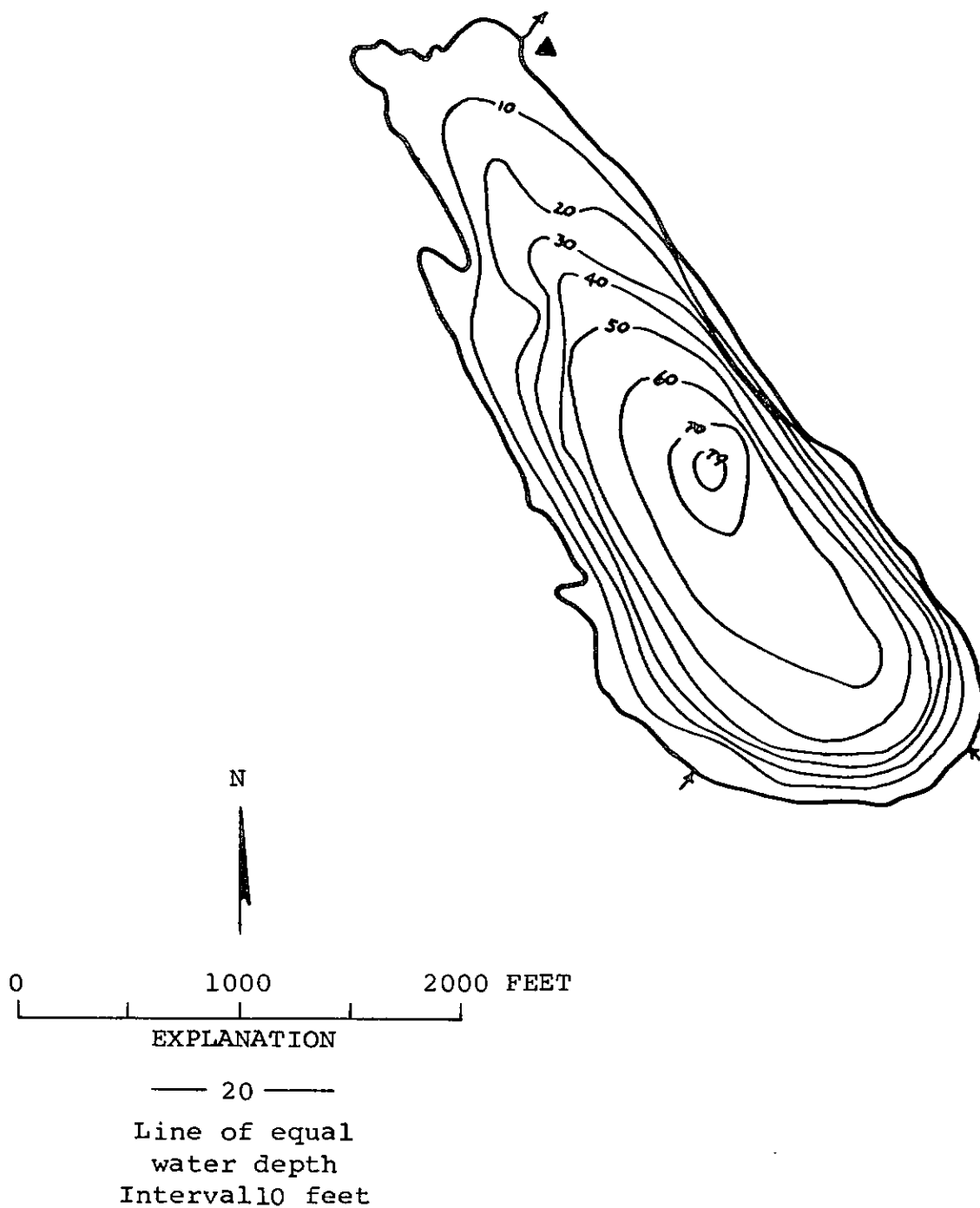
SAMPLE SITE 1
DATE 8/ 2/73
TIME 1600 1635
DEPTH (FT) 3. 56.
TOTAL NITRATE (N) 0.52 0.60
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.05 0.08
TOTAL ORGANIC NITROGEN (N) 0.19 0.09
TOTAL PHOSPHORUS (P) 0.004 0.011
TOTAL ORTHOPHOSPHATE (P) 0.002 0.003
SPECIFIC CONDUCTANCE (MICROMHOS) 36 37
WATER TEMPERATURE (DEG C) 24.2 4.1
COLOR (PLATINUM-COBALT UNITS) 10 10
SECCHI-DISC VISIBILITY (FT) 13
DISSOLVED OXYGEN 8.6 1.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/ 2/73
TIME 1645
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) 4
FECAL COLIFORM, MEAN (COL./100ML) 2

REMARKS

A DEEP LAKE IN RELATION TO THE SURFACE AREA OF THE LAKE. MOST OF THE EMERSED PLANTS WERE LOCATED ON THE SHALLOW NORTH END OF THE LAKE.



Bosworth Lake, Snohomish County. From Washington
Department of Game, January 25, 1949.



Bosworth Lake, Snohomish County. July 17, 1969. Approx. scale 1:12,000.

BOULDER LAKE

SNOHOMISH COUNTY

LATITUDE 47°56'42" LONGITUDE 121°32'59" T28N-R10E-5
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.35 SQ MI
ALTITUDE 3750. FT
LAKE AREA 20. ACRES
LAKE VOLUME 690. ACRE-FT
MEAN DEPTH 34. FT
MAXIMUM DEPTH 69. FT
SHORELINE LENGTH 0.85 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.49
BOTTOM SLOPE 6.5 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 91 %
LAKE SURFACE 9 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 8/ 1/73
TIME 1430 1435
DEPTH (FT) 3. 59.
TOTAL NITRATE (N) 0.04 0.04
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.02 0.01
TOTAL ORGANIC NITROGEN (N) 0.04 0.04
TOTAL PHOSPHORUS (P) 0.002 0.000
TOTAL ORTHOPHOSPHATE (P) 0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS) 28 68
WATER TEMPERATURE (DEG C) 17.0 7.1
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) >62
DISSOLVED OXYGEN 8.5 7.0

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/ 1/73
TIME 1440
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE WATER CLARITY WAS VERY HIGH AS INDICATED BY A SECCHI-DISC READING IN EXCESS OF 63 FEET. THE WATER COLOR IS A BRIGHT BLUE. NO EMERSED OR SUBMERSED AQUATIC PLANTS WERE OBSERVED.



Boulder Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 14, 1973.
Aerial photo, August 7, 1973.

BRYANT LAKE

SNOHOMISH COUNTY

LATITUDE 48°13'57" LONGITUDE 122° 8'53" T32N-R5E-27
STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.92 SQ MI
ALTITUDE 146. FT
LAKE AREA 37. ACRES
LAKE VOLUME 520. ACRE-FT
MEAN DEPTH 14. FT
MAXIMUM DEPTH 23. FT
SHORELINE LENGTH 0.89 MI
SHORELINE CONFIGURATION 1.0
DEVELOPMENT OF VOLUME 0.61
BOTTOM SLOPE 1.6 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 4 %
AGRICULTURAL 40 %
FOREST OR UNPRODUCTIVE 50 %
LAKE SURFACE 6 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 8/ 6/74
TIME 1030 1035
DEPTH (FT) 3. 16.
TOTAL NITRATE (N) 0.08 0.10
TOTAL NITRITE (N) 0.01 0.03
TOTAL AMMONIA (N) 0.16 0.15
TOTAL ORGANIC NITROGEN (N) 0.83 0.77
TOTAL PHOSPHORUS (P) 0.029 0.033
TOTAL ORTHOPHOSPHATE (P) 0.013 0.018
SPECIFIC CONDUCTANCE (MICROMHOS) 70 82
WATER TEMPERATURE (DEG C) 20.8 9.9
COLOR (PLATINUM-COBALT UNITS) 160 140
SECCHI-DISC VISIBILITY (FT) 2
DISSOLVED OXYGEN 8.0 0.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 6/74
TIME 1050
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 4
FECAL COLIFORM, MAXIMUM (COL./100ML) 10
FECAL COLIFORM, MEAN (COL./100ML) 6

REMARKS

A CIRCULAR LAKE SURROUNDED BY CROPLAND. TREES AND SHRUBS OVERHANG THE SHORE. THE WATER IS HIGHLY COLORED AND THE LITTORAL BOTTOM IS MOSTLY MUCK OR SILT-MUCK. EMERSED MACROPHYTES WERE SCATTERED IN DENSE BEDS AROUND THE LAKE.



Bryant Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, May 21, 1971.
Aerial photo, July 17, 1969.

CASSIDY LAKE

SNOHOMISH COUNTY

LATITUDE 48° 2'51" LONGITUDE 122° 5'28" T30N-R6E-31

SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	4.56 SQ MI
ALTITUDE	319. FT
LAKE AREA	120. ACRES
LAKE VOLUME	1300. ACRE-FT
MEAN DEPTH	11. FT
MAXIMUM DEPTH	20. FT
SHORELINE LENGTH	1.8 MI
SHORELINE CONFIGURATION	1.2
DEVELOPMENT OF VOLUME	0.55
BOTTOM SLOPE	0.77 %
BASIN GEOLOGY	SED./META.
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	22 %
NUMBER OF NEARSHORE HOMES	22
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	<1 %
AGRICULTURAL	14 %
FOREST OR UNPRODUCTIVE	82 %
LAKE SURFACE	4 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

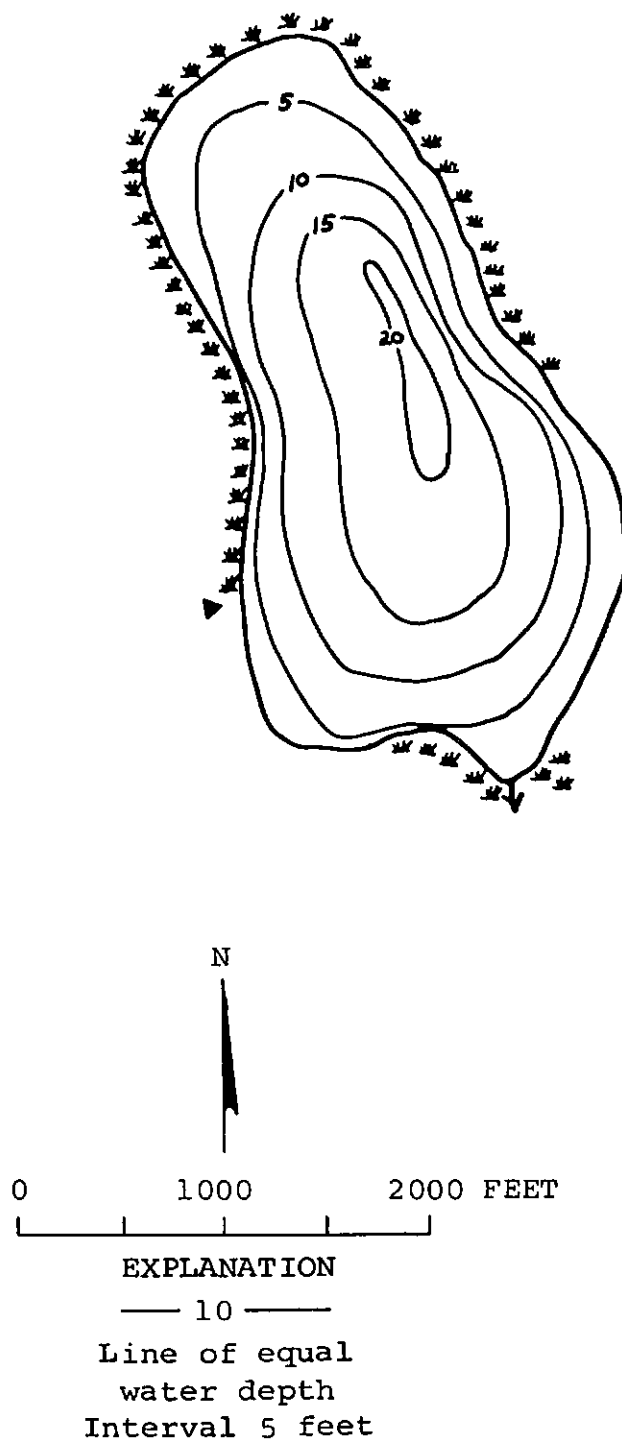
SAMPLE SITE	1
DATE	6/21/74
TIME	1040 1045
DEPTH (FT)	3. 18.
TOTAL NITRATE (N)	0.00 0.09
TOTAL NITRITE (N)	0.01 0.01
TOTAL AMMONIA (N)	0.12 0.16
TOTAL ORGANIC NITROGEN (N)	0.79 0.82
TOTAL PHOSPHORUS (P)	0.070 0.036
DISSOLVED ORTHOPHOSPHATE (P)	0.009 0.010
SPECIFIC CONDUCTANCE (MICROMHOS)	30 32
WATER TEMPERATURE (DEG C)	21.0 10.5
COLOR (PLATINUM-COBALT UNITS)	150 150
SECCHI-DISC VISIBILITY (FT)	5
DISSOLVED OXYGEN	8.1 0.7

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/21/74
TIME	1050
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

WETLAND VEGETATION SURROUNDS THE NORTHERN HALF OF THE LAKE AND SWAMPLAND EXTENDS TO THE NORTH NEAR MARTHA LAKE. DENSE BEDS OF EMERSED PLANTS COVERED MOST OF THE SHORELINE. THE LITTORAL BOTTOM IS MOSTLY MUCK. IN 1974 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 1, 1974.



Cassidy Lake, Snohomish County. From Washington
Department of Game, July 23, 1956.



Cassidy Lake, Snohomish County. July 17, 1969. Approx. scale 1:12,000.

CHAIN LAKE

SNOHOMISH COUNTY

LATITUDE 47°54'15" LONGITUDE 121°58'26" T28N-R6E-24
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.70 SQ MI
ALTITUDE 380. FT
LAKE AREA 21. ACRES
LAKE VOLUME 210. ACRE-FT
MEAN DEPTH 4. FT
MAXIMUM DEPTH 18. FT
SHORELINE LENGTH 0.84 MI
SHORELINE CONFIGURATION 2.0
DEVELOPMENT OF VOLUME 0.22
BOTTOM SLOPE 1.0 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIRLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 20 %
NUMBER OF NEARSHORE HOMES 3
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 19 %
FOREST OR UNPRODUCTIVE 76 %
LAKE SURFACE 5 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

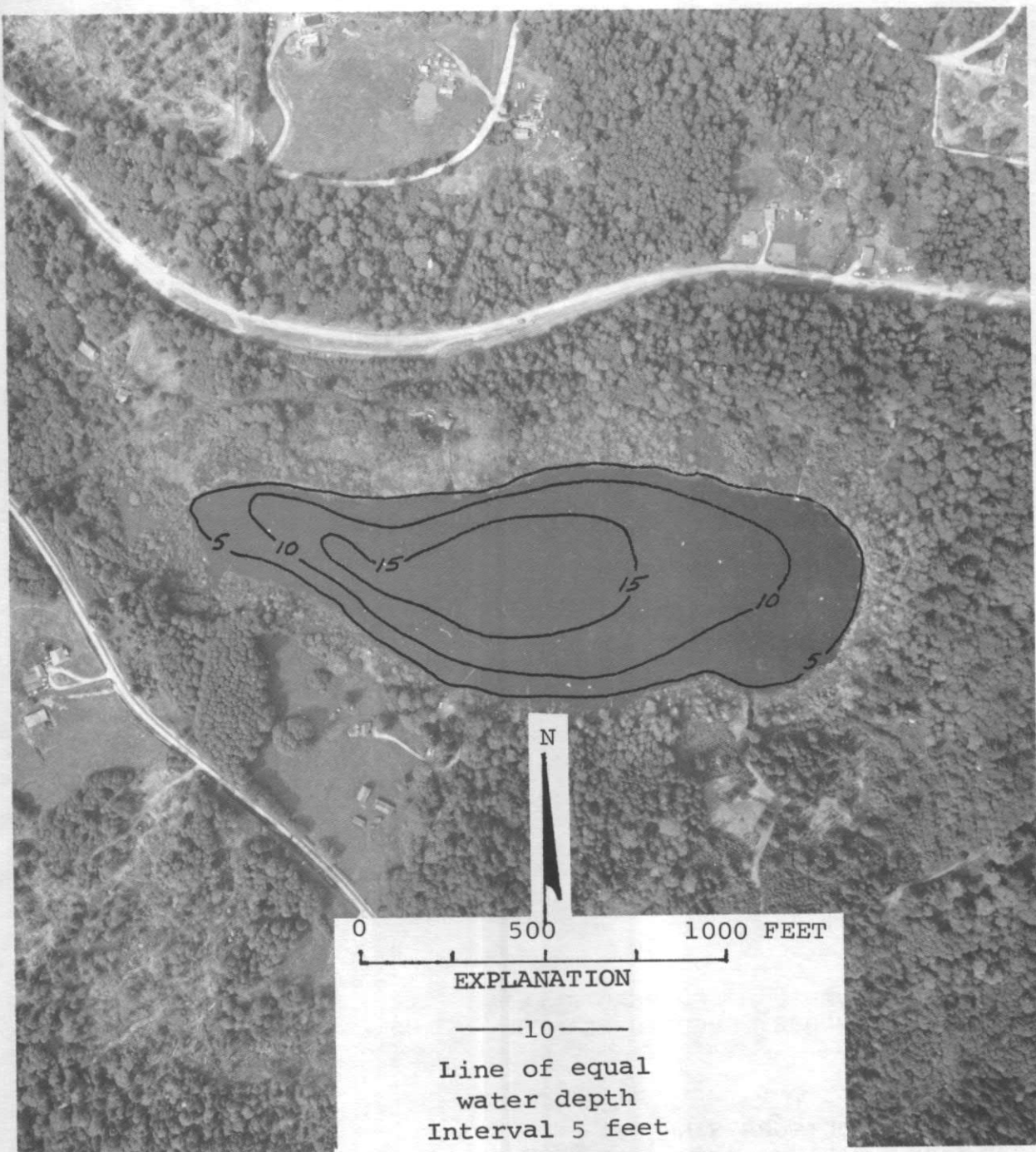
SAMPLE SITE 1
DATE 7/23/73
TIME 1500 1510
DEPTH (FT) 3. 12.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.01
TOTAL AMMONIA (N) 0.04 0.05
TOTAL ORGANIC NITROGEN (N) 0.28 0.28
TOTAL PHOSPHORUS (P) 0.033 0.030
TOTAL ORTHOPHOSPHATE (P) 0.014 0.009
SPECIFIC CONDUCTANCE (MICROMHOS) 48 48
WATER TEMPERATURE (DEG C) 22.0 15.2
COLOR (PLATINUM-COBALT UNITS) 10 10
SECCHI-DISC VISIBILITY (FT) 6
DISSOLVED OXYGEN 8.4 3.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/23/73
TIME 1500
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) 4
FECAL COLIFORM, MEAN (COL./100ML) 3

REMARKS

EMERSED MACROPHYTES COVERED THE SHORELINE AND WETLAND VEGETATION
SURROUNDED THE LAKE. THE LITTORAL BOTTOM IS VEPY SOFT MUCK.



Chain Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, July 19, 1973.
Aerial photo, May 13, 1973.

COCHRAN LAKE

SNOHOMISH COUNTY

LATITUDE 47°55' 1" LONGITUDE 121°54'21" T28N-R7E-16
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.41 SQ MI
ALTITUDE 425. FT
LAKE AREA 33. ACRES
LAKE VOLUME 870. ACRE-FT
MEAN DEPTH 26. FT
MAXIMUM DEPTH 54. FT
SHOPELINE LENGTH 0.91 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.49
BOTTOM SLOPE 4.0 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 60 %
NUMBER OF NEARSHORE HOMES 17
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 7 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 80 %
LAKE SURFACE 13 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

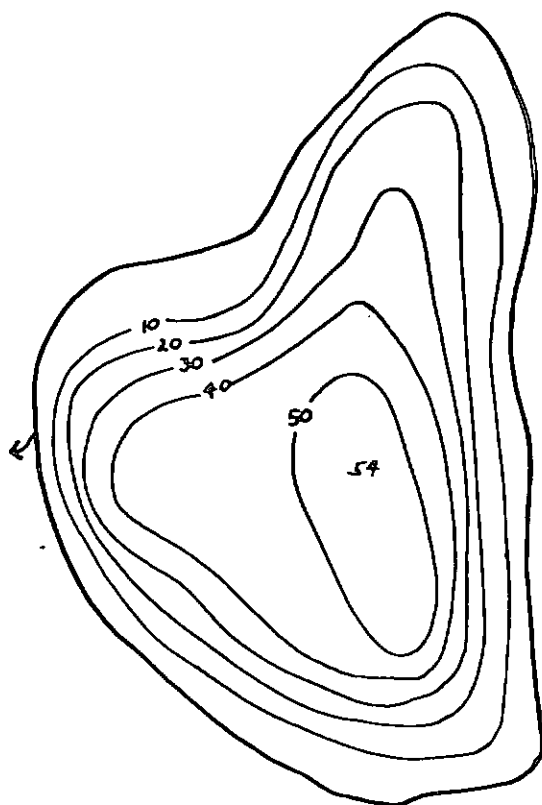
SAMPLE SITE 1
DATE 7/23/73
TIME 1630 1640
DEPTH (FT) 3. 43.
TOTAL NITRATE (N) 0.01 0.22
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.02 0.07
TOTAL ORGANIC NITROGEN (N) 0.16 0.16
TOTAL PHOSPHORUS (P) 0.007 0.013
TOTAL ORTHOPHOSPHATE (P) 0.005 0.007
SPECIFIC CONDUCTANCE (MICROMHOS) 30 32
WATER TEMPERATURE (DEG C) 22.0 4.9
COLOR (PLATINUM-COBALT UNITS) 10 15
SECCHI-DISC VISIBILITY (FT) 10
DISSOLVED OXYGEN 8.7 1.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/23/73
TIME 1630
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 4
FECAL COLIFORM, MEAN (COL./100ML) 2

REMARKS

A RELATIVELY DEEP SPRING-FED LAKE.



EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Cochran Lake, Snohomish County. From Washington
Department of Game, June 22, 1954.



Cochran Lake, Snohomish County. May 13, 1973. Approx. scale 1:4800.

COPPER LAKE

SNOHOMISH COUNTY

LATITUDE 48° 2' 12" LONGITUDE 121° 32' 28" T29N-R10E-5
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 2.05 SQ MI
ALTITUDE 3000. FT
LAKE AREA 54. ACRES
LAKE VOLUME 2900. ACRE-FT
MEAN DEPTH 54. FT
MAXIMUM DEPTH 81. FT
SHORELINE LENGTH 1.4 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.66
BOTTOM SLOPE 4.7 %
BASIN GEOLOGY IGNEOUS
INFLOW PERENNIAL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 96 %
LAKE SURFACE 4 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

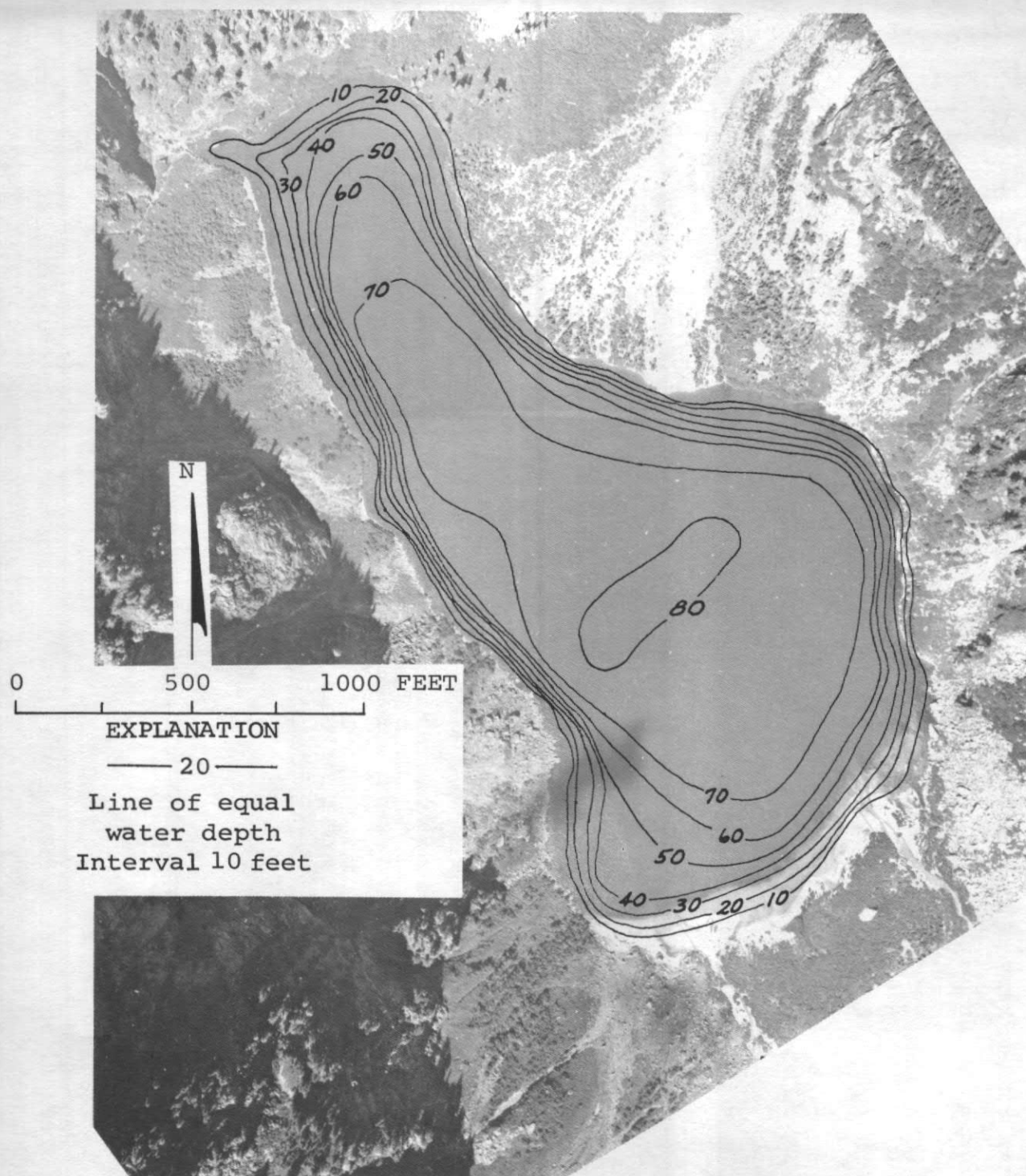
SAMPLE SITE 1
DATE 8/ 1/73
TIME 1140 1145
DEPTH (FT) 3. 69.
TOTAL NITRATE (N) 0.07 0.09
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.02 0.03
TOTAL ORGANIC NITROGEN (N) 0.03 0.02
TOTAL PHOSPHORUS (P) 0.004 0.005
TOTAL ORTHOPHOSPHATE (P) 0.001 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 9 13
WATER TEMPERATURE (DEG C) 11.8 4.9
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 36
DISSOLVED OXYGEN 10.0 10.6

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/ 1/73
TIME 1150
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

A GLACIAL-FED LAKE. A LARGE GRAVEL AND SAND DELTA DEPOSIT HAS FORMED IN THE LAKE. THE WATER IS TURQUOISE IN COLOR FROM GLACIAL SILT.



Copper Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 15, 1973.
Aerial photo, August 7, 1973.

CRABAPPLE LAKE

SNOHOMISH COUNTY

LATITUDE 48° 7'49" LONGITUDE 122°16'22" T31N-R4E-34
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.20 SQ MI
 ALTITUDE 410. FT
 LAKE AREA 35. ACRES
 LAKE VOLUME 650. ACRE-FT
 MEAN DEPTH 18. FT
 MAXIMUM DEPTH 49. FT
 SHORELINE LENGTH 1.1 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.37
 BOTTOM SLOPE 3.5 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 53 %
 NUMBER OF NEARSHORE HOMES 33
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 4 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 89 %
 LAKE SURFACE 7 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

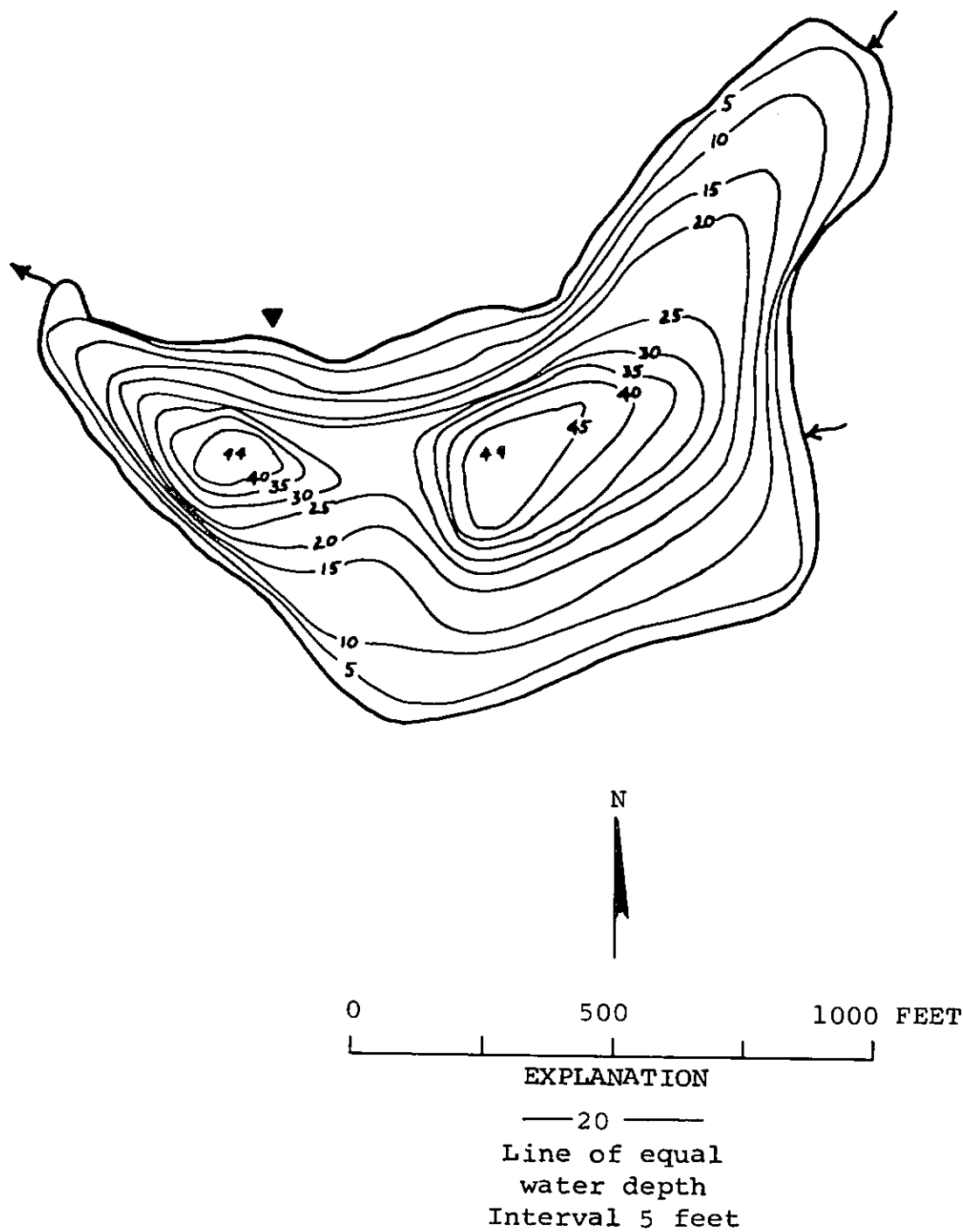
 SAMPLE SITE 1
 DATE 7/18/73
 TIME 1300 1315
 DEPTH (FT) 3. 33.
 TOTAL NITRATE (N) 0.43 0.65
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.06 0.09
 TOTAL ORGANIC NITROGEN (N) 0.35 0.22
 TOTAL PHOSPHORUS (P) 0.018 0.015
 DISSOLVED ORTHOPHOSPHATE (P) 0.006 0.003
 SPECIFIC CONDUCTANCE (MICROMHOS) 59 56
 WATER TEMPERATURE (DEG C) 24.0 6.8
 COLOR (PLATINUM-COBALT UNITS) 10 10
 SECCHI-DISC VISIBILITY (FT) 10
 DISSOLVED OXYGEN 9.2 2.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/18/73
 TIME 1315
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) 4
 FECAL COLIFORM, MAXIMUM (COL./100ML) 13
 FECAL COLIFORM, MEAN (COL./100ML) 8

REMARKS

 THE LAKE IS FED FROM LOMA LAKE BY AN UNNAMED STREAM. A GIRL SCOUT CAMP IS LOCATED ON THE EAST END OF THE LAKE. DURING THE SUMMER THE LAKE RECEIVES HEAVY RECREATIONAL USE. IN 1973 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 16, 1973.



Crabapple Lake, Snohomish County.
From Washington Department of Game, July 11, 1952.



Crabapple Lake, Snohomish County. July 14, 1973. Approx. scale 1:4800.

CRYSTAL LAKE

SNOHOMISH COUNTY

LATITUDE 47°46'34" LONGITUDE 122° 6'22" T27N-R5E-36
SAMMAMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

-----	-----	-----	-----
DRAINAGE AREA	3.31 SQ MI	RESIDENTIAL DEVELOPMENT	44 %
ALTITUDE	335. FT	NUMBER OF NEARSHORE HOMES	48
LAKE AREA	54. ACRES	LAND USE IN DRAINAGE BASIN	
LAKE VOLUME	710. ACRE-FT	RESIDENTIAL URBAN	2 %
MEAN DEPTH	13. FT	RESIDENTIAL SUBURBAN	3 %
MAXIMUM DEPTH	33. FT	AGRICULTURAL	15 %
SHORELINE LENGTH	1.8 MI	FOREST OR UNPRODUCTIVE	77 %
SHORELINE CONFIGURATION	1.8	LAKE SURFACE	3 %
DEVELOPMENT OF VOLUME	0.40		
BOTTOM SLOPE	1.9 %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

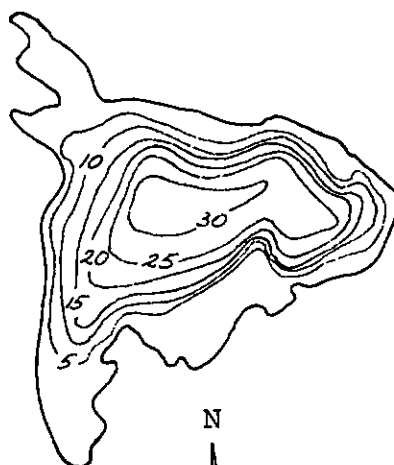
SAMPLE SITE	1
DATE	8/ 2/74
TIME	1310 1315
DEPTH (FT)	3. 26.
TOTAL NITRATE (N)	0.02 0.01
TOTAL NITRITE (N)	0.00 0.01
TOTAL AMMONIA (N)	0.14 0.54
TOTAL ORGANIC NITROGEN (N)	0.42 0.16
TOTAL PHOSPHORUS (P)	0.019 0.18
TOTAL ORTHOPHOSPHATE (P)	0.005 0.13
SPECIFIC CONDUCTANCE (MICROMHOS)	40 50
WATER TEMPERATURE (DEG C)	24.5 7.6
COLOR (PLATINUM-COBALT UNITS)	25 50
SECCHI-DISC VISIRILITY (FT)	6
DISSOLVED OXYGEN	7.8 0.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	8/ 2/74
TIME	1310
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	5
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

LAKE LEVELS ARE STABILIZED BY A DAM. THE LAKE IS FED BY LITTLE LAKE
AND A LARGE MARSH. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



N



0 1000 2000 FEET



EXPLANATION

—10—

Line of equal
water depth
Interval 5 feet

Crystal Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, January 25, 1974.



Crystal Lake, Snohomish County. July 17, 1969. Approx. scale 1:13,000.

CUP LAKE

SNOHOMISH COUNTY

LATITUDE 47°49'39" LONGITUDE 121° 8'25" T27N-R13E-16
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.20 SQ MI
ALTITUDE 4711. FT
LAKE AREA 10. ACRES
LAKE VOLUME 420. ACRE-FT
MEAN DEPTH 42. FT
MAXIMUM DEPTH 75. FT
SHORELINE LENGTH 0.47 MI
SHORELINE CONFIGURATION 1.0
DEVELOPMENT OF VOLUME 0.55
BOTTOM SLOPE 10. %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 92 %
LAKE SURFACE 8 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/31/73
TIME 1640 1645
DEPTH (FT) 3. 79.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.03 0.02
TOTAL ORGANIC NITROGEN (N) 0.08 0.04
TOTAL PHOSPHORUS (P) 0.004 0.005
TOTAL ORTHOPHOSPHATE (P) 0.001 0.003
SPECIFIC CONDUCTANCE (MICROMHOS) 12 20
WATER TEMPERATURE (DEG C) 17.8 4.5
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIRILITY (FT) 70
DISSOLVED OXYGEN 8.2 5.4

LAKE SHORELINE COVERED BY EMERSED PLANTS. LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/31/73
TIME 1640
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE LAKE IS FED BY SAUCER LAKE. THE WATER IS VERY TRANSPARENT AS
INDICATED BY THE SECCHI-DISC READING OF 70 FEET. NO MACROPHYTES WERE
OBSERVED.



0 500 1000 FEET

EXPLANATION

—20—

Line of equal
water depth
Interval 10 feet

Cup Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 5, 1973.
Aerial photo, August 3, 1973.

DAGGER LAKE

SNOHOMISH COUNTY

LATITUDE 47°48'43" LONGITUDE 121°47'38" T27N-R8E-21
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 1.14 SQ MI
ALTITUDE 662. FT
LAKE AREA 32. ACRES
LAKE VOLUME 670. ACRE-FT
MEAN DEPTH 21. FT
MAXIMUM DEPTH 42. FT
SHORELINE LENGTH 0.87 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.50
BOTTOM SLOPE 3.2 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 5 %
NUMBER OF NEARSHORE HOMES 1
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 3 %
FOREST OR UNPRODUCTIVE 93 %
LAKE SURFACE 4 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

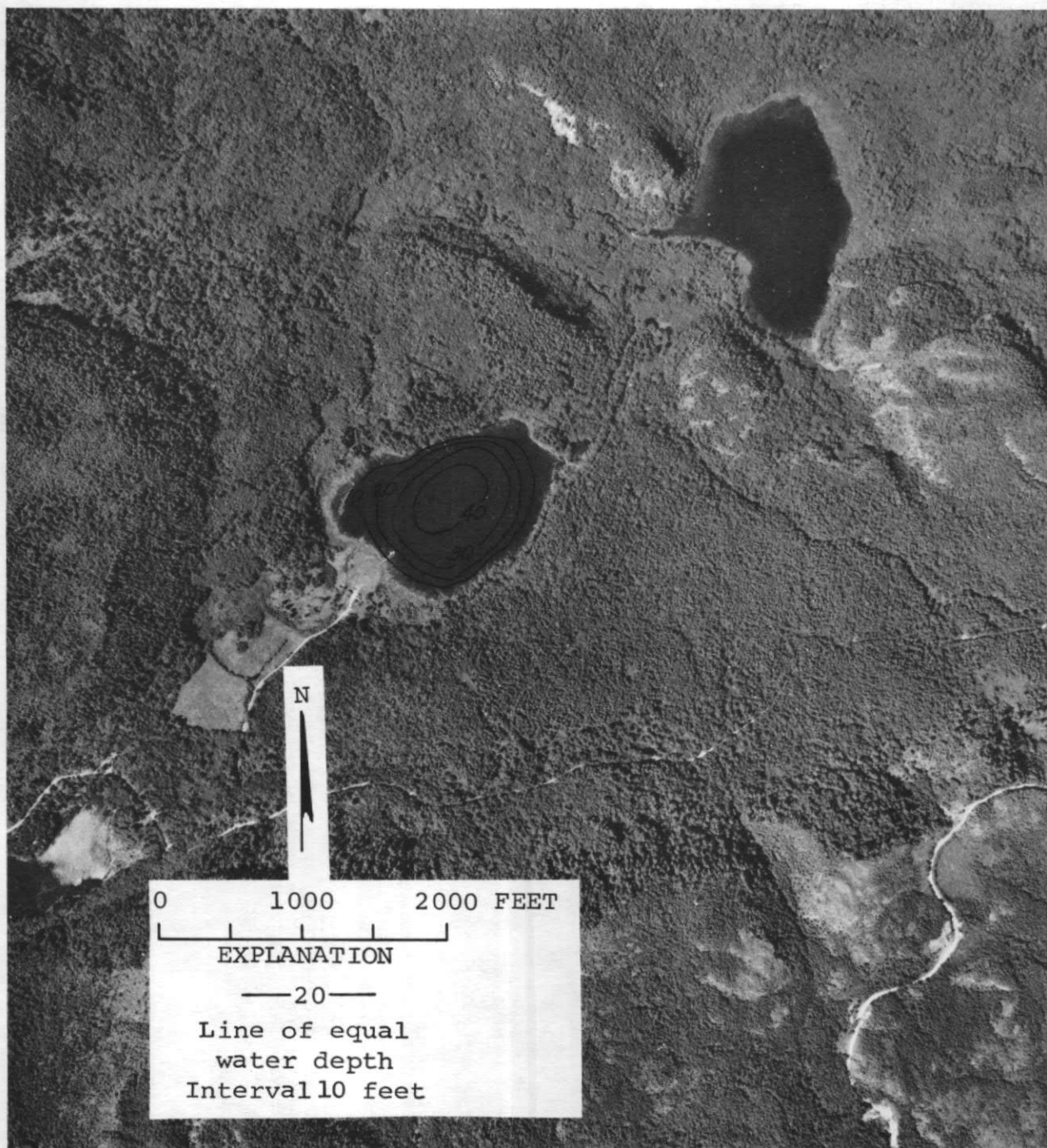
SAMPLE SITE 1
DATE 8/ 2/74
TIME 1035 1040
DEPTH (FT) 3. 36.
TOTAL NITRATE (N) 0.04 0.16
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.05 0.10
TOTAL ORGANIC NITROGEN (N) 0.21 0.41
TOTAL PHOSPHORUS (P) 0.005 0.008
TOTAL ORTHOPHOSPHATE (P) 0.005 0.006
SPECIFIC CONDUCTANCE (MICROMHOS) 40 50
WATER TEMPERATURE (DEG C) 24.4 8.3
COLOR (PLATINUM-COBALT UNITS) 0 10
SECCHI-DISC VISIBILITY (FT) 13
DISSOLVED OXYGEN 8.5 3.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 2/74
TIME 1050
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE LITTORAL BOTTOM IS MUCK. THE SHORELINE IS LITTERED WITH LOGS AND WOOD DEBRIS.



Dagger Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, June 25, 1974.
Aerial photo, July 18, 1969.

DEVILS LAKE

SNOHOMISH COUNTY

LATITUDE 47°47'54" LONGITUDE 122° 2'19" T27N-R6E-28
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.20 SQ MI
ALTITUDE 445. FT
LAKE AREA 13. ACRES
LAKE VOLUME 310. ACRE-FT
MEAN DEPTH 23. FT
MAXIMUM DEPTH 45. FT
SHORELINE LENGTH 0.71 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.52
BOTTOM SLOPE 5.3 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 88 %
NUMBER OF NEARSHORE HOMES 19
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 12 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 78 %
LAKE SURFACE 10 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

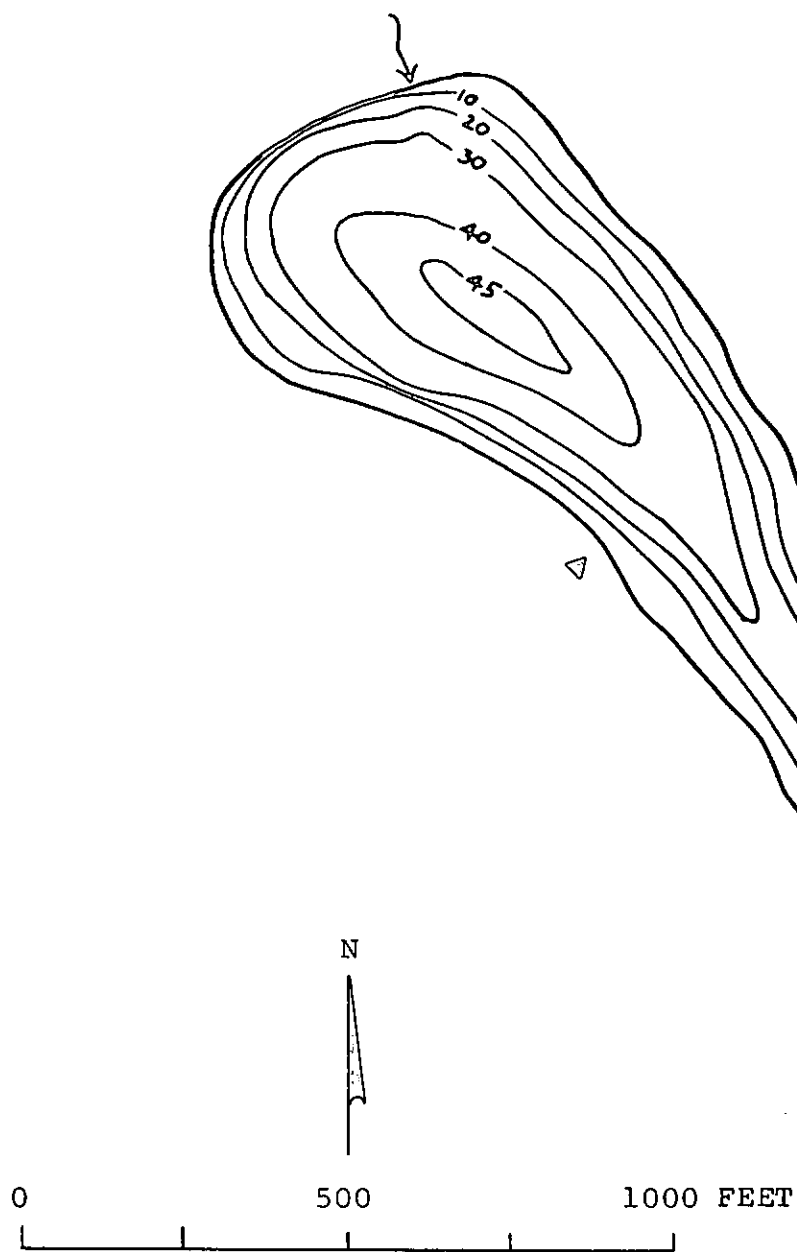
SAMPLE SITE 1
DATE 8/ 3/73
TIME 1140 1145
DEPTH (FT) 3. 36.
TOTAL NITRATE (N) 0.01 0.06
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.12 0.83
TOTAL ORGANIC NITROGEN (N) 0.30 0.13
TOTAL PHOSPHORUS (P) 0.011 0.049
TOTAL ORTHOPHOSPHATE (P) 0.005 0.026
SPECIFIC CONDUCTANCE (MICROMHOS) 49 56
WATER TEMPERATURE (DEG C) 22.3 5.0
COLOR (PLATINUM-COBALT UNITS) 60 150
SECCHI-DISC VISIBILITY (FT) 7
DISSOLVED OXYGEN 8.2 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 3/73
TIME 1145
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 12
FECAL COLIFORM, MAXIMUM (COL./100ML) 18
FECAL COLIFORM, MEAN (COL./100ML) 15

REMARKS

A LOW-DENSITY ALGAL BLOOM WAS OBSERVED AND HYDROGEN SULFIDE WAS DETECTED
IN THE HYPOLIMNION. THE LITTORAL BOTTOM IS MOSTLY MUCK.



EXPLANATION
— 20 —
Line of equal
water depth
Interval 10 feet

Devils Lake, Snohomish County. From Washington
Department of Game, July 3, 1952.



Devils Lake, Snohomish County. May 13, 1973. Approx. scale 1:4800.

ECHO LAKE

SNOHOMISH COUNTY

LATITUDE 47°47'13" LONGITUDE 122° 3' 7" T27N-R6E-33
SAMMAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.23 SQ MI
ALTITUDE 477. FT
LAKE AREA 17. ACRES
LAKE VOLUME 290. ACRE-FT
MEAN DEPTH 17. FT
MAXIMUM DEPTH 50. FT
SHORELINE LENGTH 0.63 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.34
BOTTOM SLOPE 5.1 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIRLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 74 %
NUMBER OF NEARSHORE HOMES 29
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 10 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 78 %
LAKE SURFACE 12 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

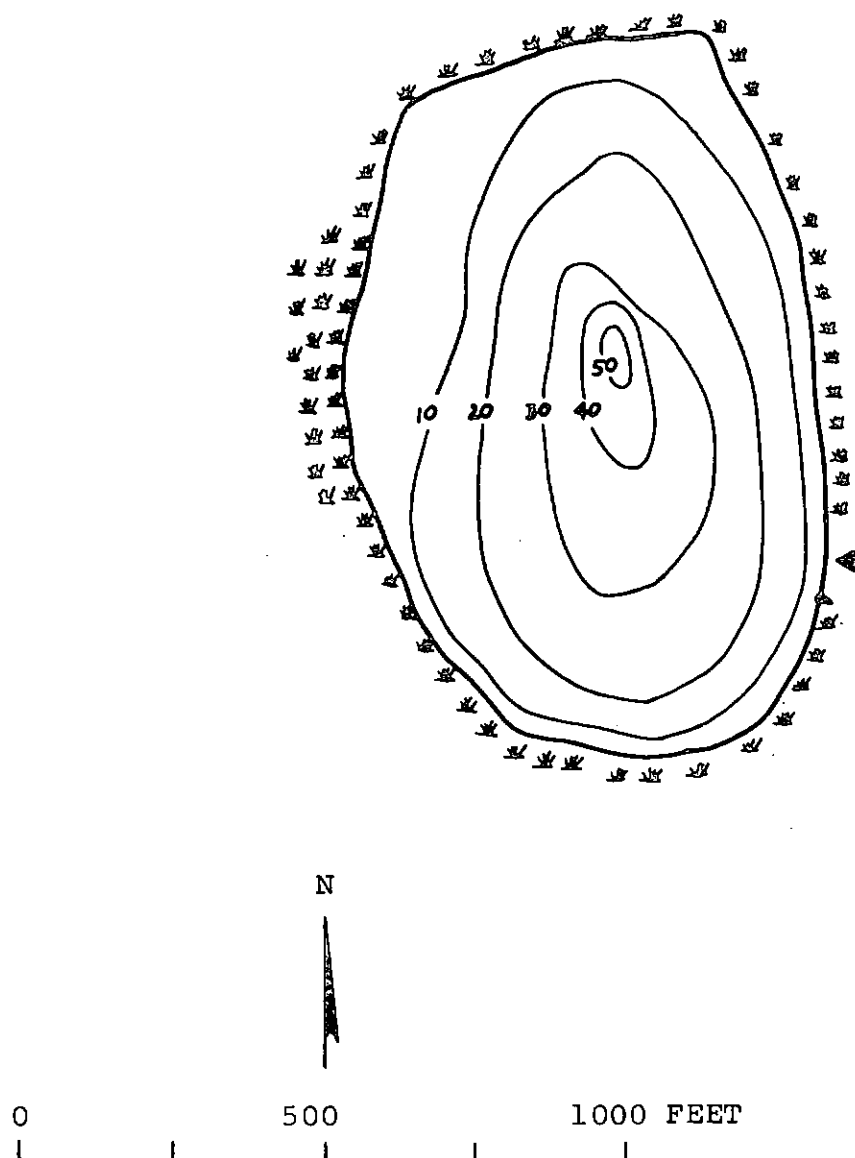
SAMPLE SITE 1
DATE 8/ 3/73
TIME 1245 1250
DEPTH (FT) 3. 31.
TOTAL NITRATE (N) 0.03 0.01
TOTAL NITRITE (N) 0.00 0.01
TOTAL AMMONIA (N) 0.10 0.94
TOTAL ORGANIC NITROGEN (N) 0.34 0.16
TOTAL PHOSPHORUS (P) 0.015 0.031
TOTAL ORTHOPHOSPHATE (P) 0.001 0.009
SPECIFIC CONDUCTANCE (MICROMHOS) 42 51
WATER TEMPERATURE (DEG C) 23.2 6.7
COLOR (PLATINUM-COBALT UNITS) 30 50
SECCHI-DISC VISIBILITY (FT) 7
DISSOLVED OXYGEN 9.1 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 10- 25 %

DATE 8/ 3/73
TIME 1250
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) 9
FECAL COLIFORM, MEAN (COL./100ML) 5

REMARKS

A DEEP LAKE IN RELATION TO THE SURFACE AREA OF THE LAKE. MOST EMERSED
MACROPHYTES WERE ON THE SHALLOW WEST SIDE OF THE LAKE. THE LITTORAL
BOTTOM IS MUCK.

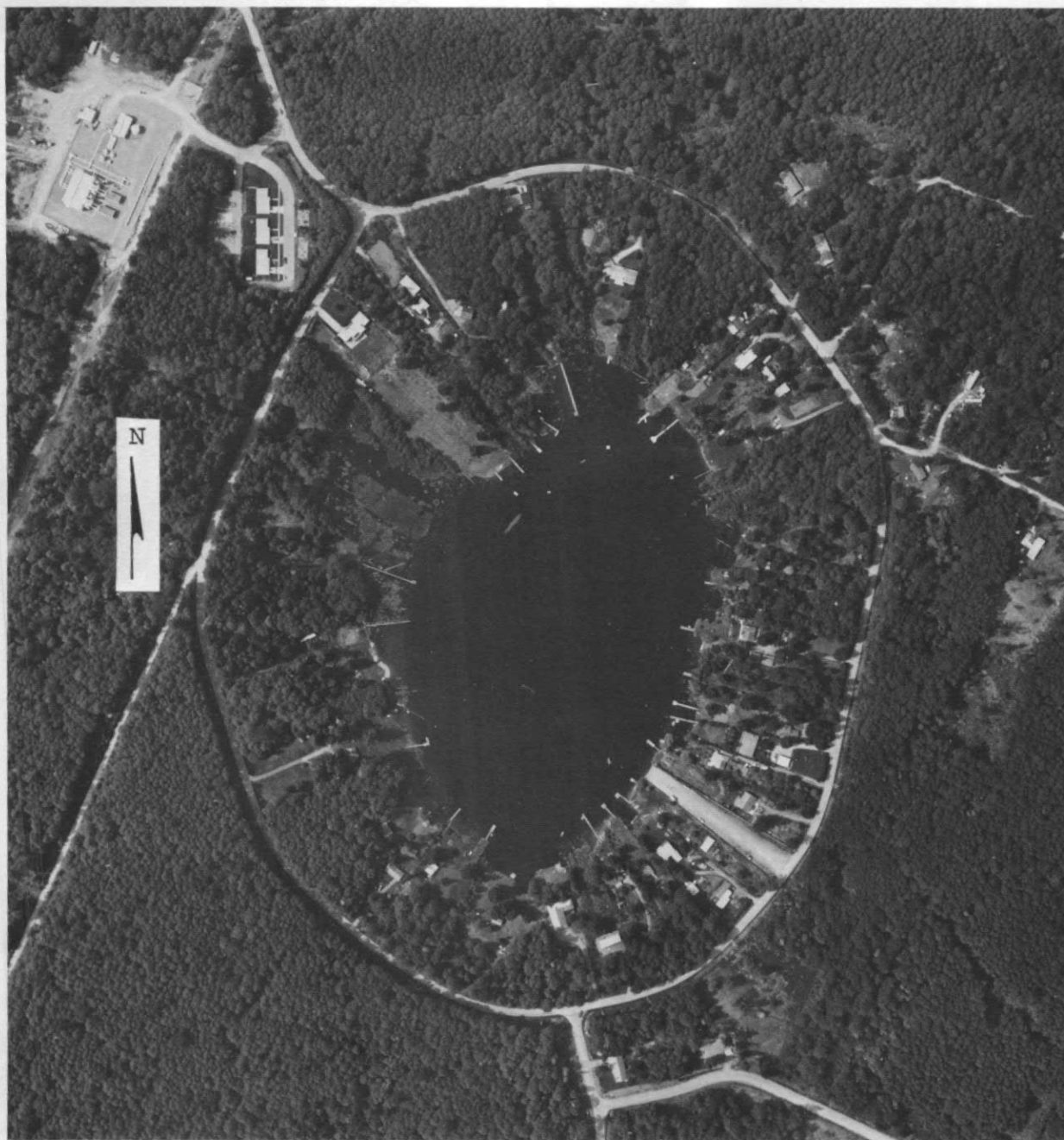


EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Echo Lake, Snohomish County. From Washington
Department of Game, July 23, 1952.



Echo Lake, Snohomish County. May 13, 1973. Approx. scale 1:4800.

FLOWING LAKE

SNOHOMISH COUNTY

LATITUDE 47°56'54" LONGITUDE 121°59'40" T28N-R6E-2
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.79 SQ MI
ALTITUDE 526. FT
LAKE AREA 130. ACRES
LAKE VOLUME 3800. ACRE-FT
MEAN DEPTH 28. FT
MAXIMUM DEPTH 69. FT
SHORELINE LENGTH 2.2 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.41
BOTTOM SLOPE 2.5 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 61 %
NUMBER OF NEARSHORE HOMES 61
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 19 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 55 %
LAKE SURFACE 26 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

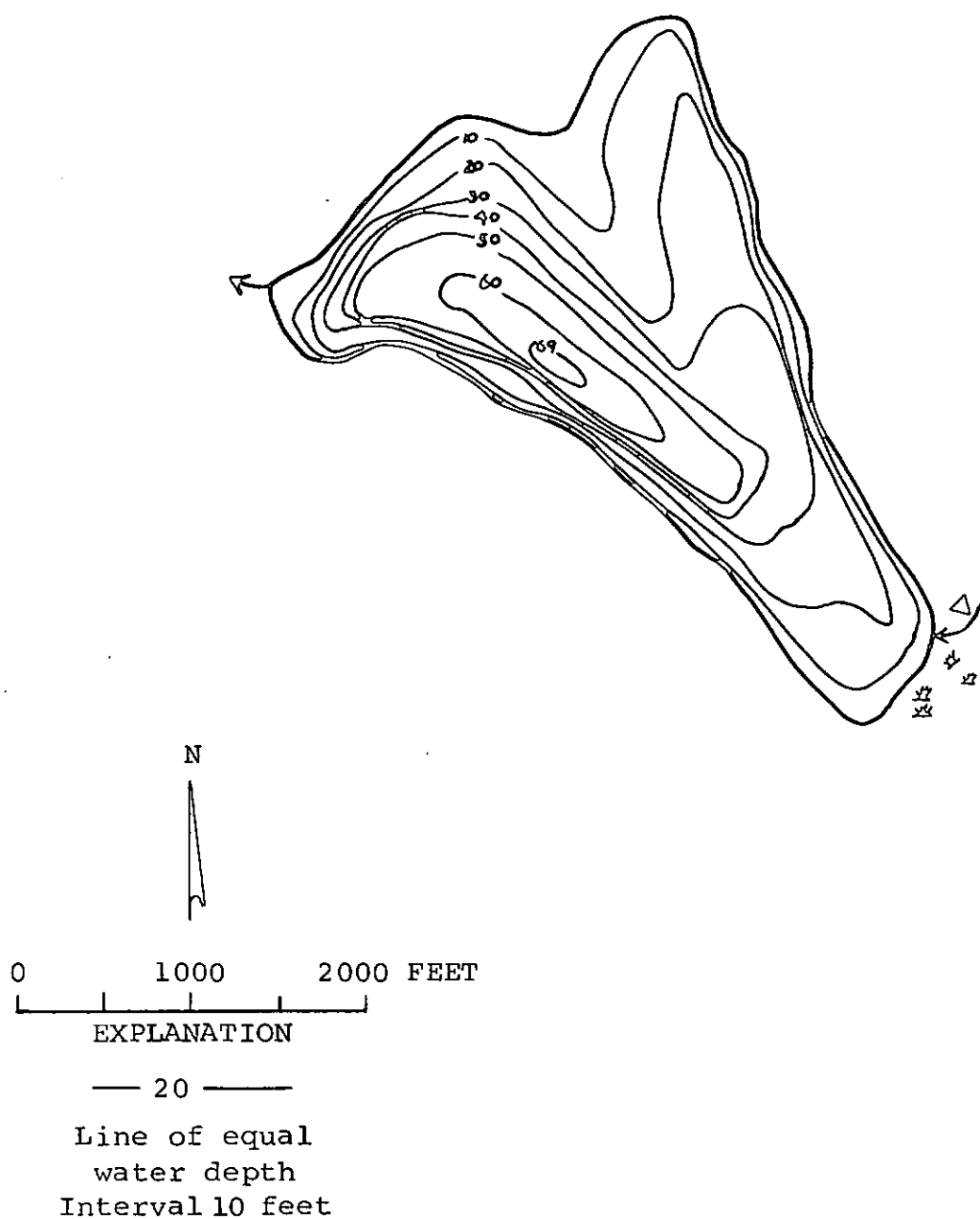
SAMPLE SITE 1
DATE 7/23/73
TIME 1230 1240
DEPTH (FT) 3. 56.
TOTAL NITRATE (N) 0.02 0.27
TOTAL NITRITE (N) 0.00 0.01
TOTAL AMMONIA (N) 0.04 0.20
TOTAL ORGANIC NITROGEN (N) 0.26 0.24
TOTAL PHOSPHORUS (P) 0.007 0.034
TOTAL ORTHOPHOSPHATE (P) 0.005 0.014
SPECIFIC CONDUCTANCE (MICROMHOS) 38 38
WATER TEMPERATURE (DEG C) 21.2 5.9
COLOR (PLATINUM-COBALT UNITS) 5 45
SECCHI-DISC VISIBILITY (FT) 9
DISSOLVED OXYGEN 9.0 1.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/23/73
TIME 1245
NUMBER OF FECAL COLIFORM SAMPLES 4
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 10
FECAL COLIFORM, MEAN (COL./100ML) 5

REMARKS

THE LAKE IS FED BY STORM LAKE. A PARK AND SWIMMING BEACH ARE LOCATED ON THE LAKE. DURING THE SUMMER RECREATIONAL USE IS HEAVY. THE LAKE HAS BEEN DREDGED ON THE NORTHEAST CORNER.



Flowing Lake, Snohomish County. From Washington
Department of Game, March 20, 1948.



Flowing Lake, Snohomish County. July 17, 1969. Approx. scale 1:12,000.

FONTAL LAKE

SNOHOMISH COUNTY

LATITUDE 47°49'14" LONGITUDE 121°53'27" T27N-R7E-15
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.69 SQ MI
ALTITUDE 1081. FT
LAKE AREA 45. ACRES
LAKE VOLUME 700. ACRE-FT
MEAN DEPTH 16. FT
MAXIMUM DEPTH 42. FT
SHORELINE LENGTH 1.5 MI
SHORELINE CONFIGURATION 1.6
DEVELOPMENT OF VOLUME 0.37
BOTTOM SLOPE 2.7 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 90 %
LAKE SURFACE 10 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

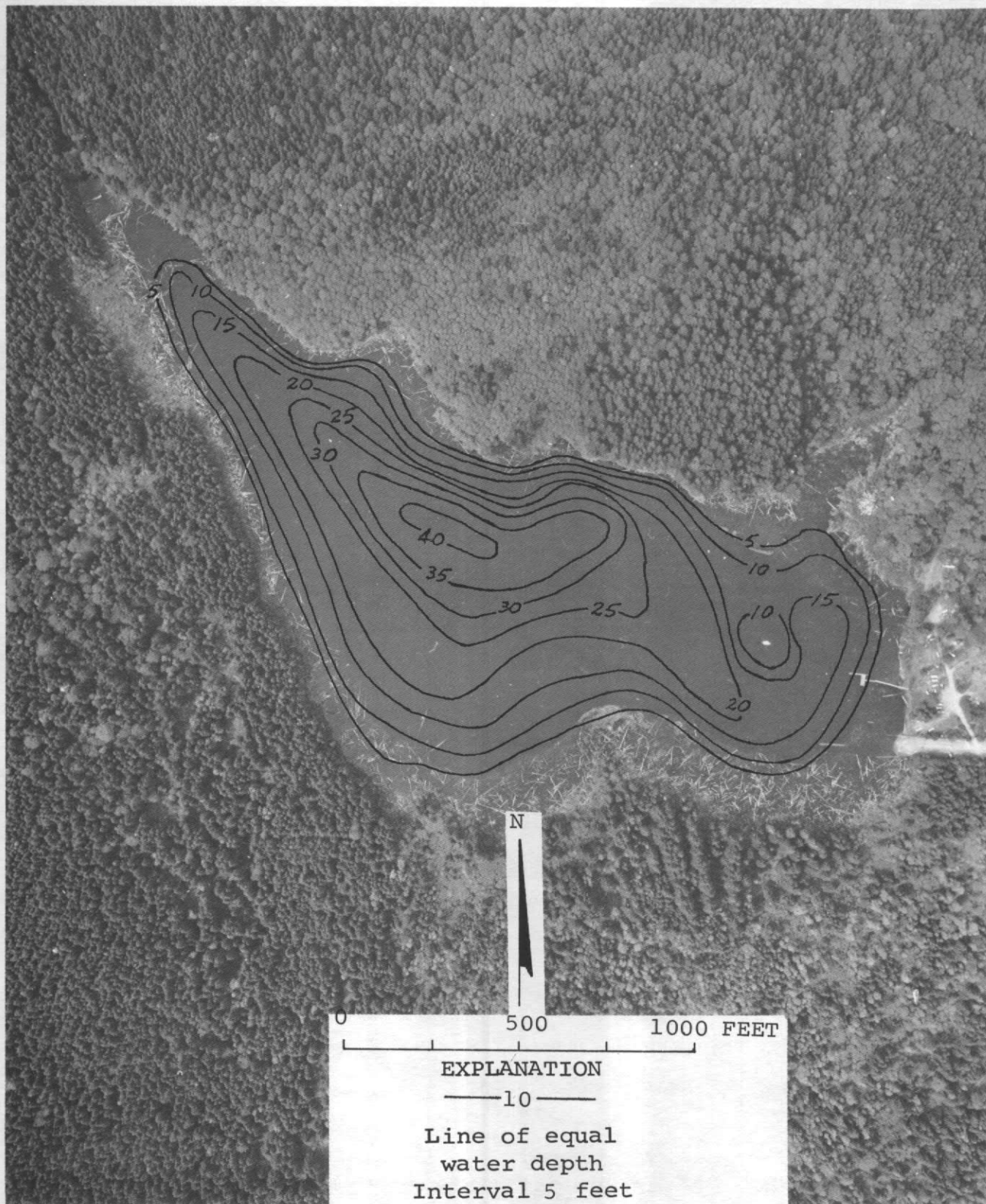
SAMPLE SITE 1
DATE 7/30/73
TIME 1150 1200
DEPTH (FT) 3. 21.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.08 0.16
TOTAL ORGANIC NITROGEN (N) 0.24 0.32
TOTAL PHOSPHORUS (P) 0.010 0.024
TOTAL ORTHOPHOSPHATE (P) 0.003 0.008
SPECIFIC CONDUCTANCE (MICROMHOS) 29 30
WATER TEMPERATURE (DEG C) 22.0 11.0
COLOR (PLATINUM-COBALT UNITS) 0 10
SECCHI-DISC VISIBILITY (FT) 11
DISSOLVED OXYGEN 8.3 2.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 7/30/73
TIME 1205
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) 3
FECAL COLIFORM, MEAN (COL./100ML) 1

REMARKS

A HEAVY COVER OF EMERSED PLANTS WAS OBSERVED GROWING BETWEEN THE MANY
LOGS AND SNAGS NEAR THE SHORE. THE LITTORAL BOTTOM WAS VERY SOFT MUCK.



Fontal Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, July 24, 1973.
Aerial photo, May 13, 1973.

GOAT LAKE

SNOHOMISH COUNTY

LATITUDE 48° 1'19" LONGITUDE 121°21'17" T29N-R11E-11
SKAGIT RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 3.03 SQ MI
ALTITUDE 3161. FT
LAKE AREA 56. ACRES
LAKE VOLUME 1500. ACRE-FT
MEAN DEPTH 27. FT
MAXIMUM DEPTH 82. FT
SHORELINE LENGTH 1.9 MI
SHORELINE CONFIGURATION 1.8
DEVELOPMENT OF VOLUME 0.33
BOTTOM SLOPE 4.7 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 97 %
LAKE SURFACE 3 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

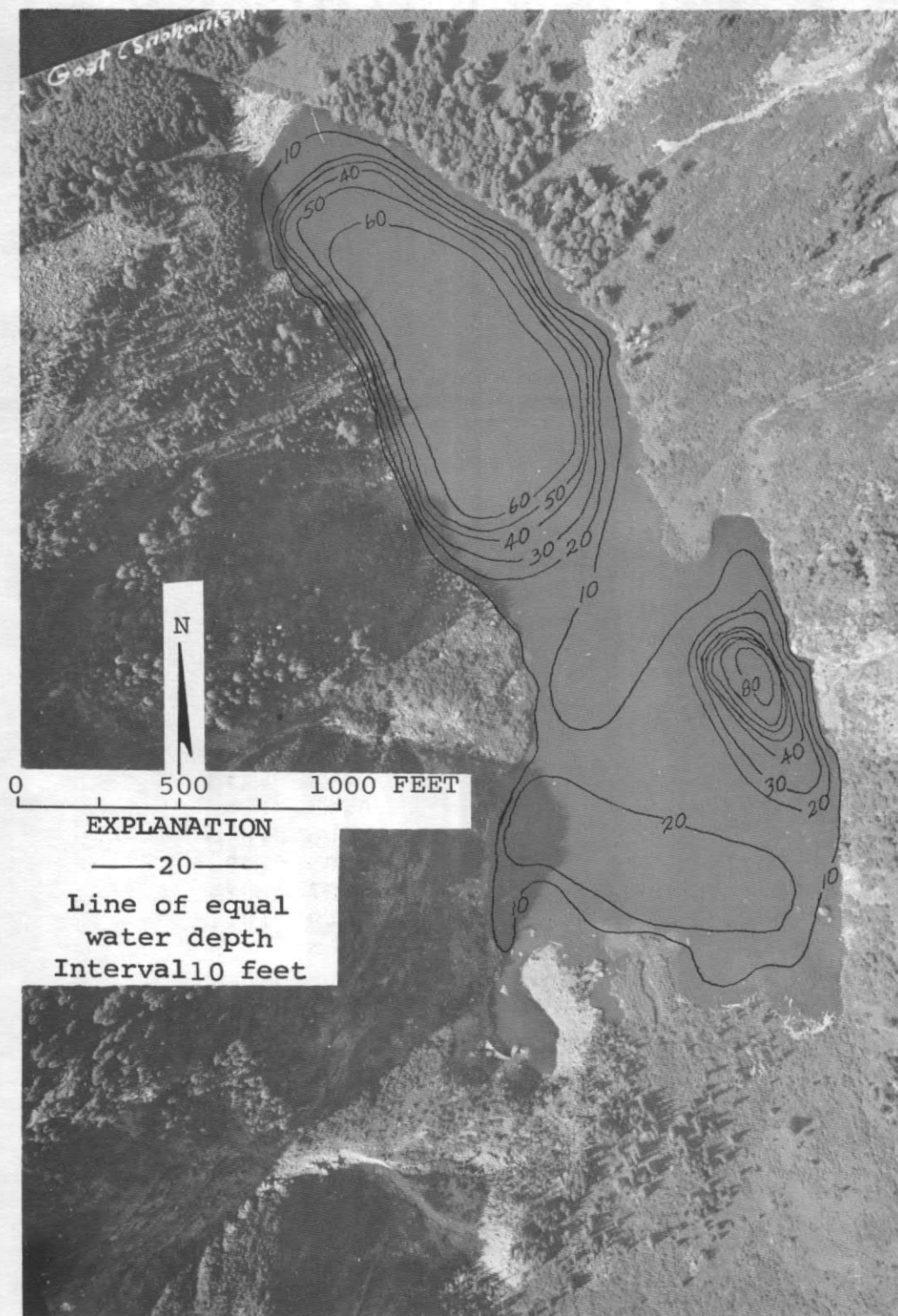
SAMPLE SITE 1
DATE 8/ 1/73
TIME 1315 1320
DEPTH (FT) 3. 59.
TOTAL NITRATE (N) 0.04 0.09
TOTAL NITRITE (N) 0.01 0.00
TOTAL AMMONIA (N) 0.03 0.10
TOTAL ORGANIC NITROGEN (N) 0.00 0.02
TOTAL PHOSPHORUS (P) 0.002 0.007
TOTAL ORTHOPHOSPHATE (P) 0.002 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 14 24
WATER TEMPERATURE (DEG C) 12.0 5.0
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 24
DISSOLVED OXYGEN 9.8 4.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/ 1/73
TIME 1325
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

A LARGE DELTA DEPOSIT HAS FORMED NEAR THE INFLOW. ROCKSLIDES INTO THE LAKE HAVE ALSO PARTLY FILLED IN THE LAKE.



Goat Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, July 17, 1973.
Aerial photo, August 3, 1973.

GOODWIN LAKE

SNOHOMISH COUNTY

LATITUDE 48° 8' 2" LONGITUDE 122°17'57" T31N-R4E-33
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 5.17 SQ MI
 ALTITUDE 324. FT
 LAKE AREA 560. ACRES
 LAKE VOLUME 13000. ACRE-FT
 MEAN DEPTH 23. FT
 MAXIMUM DEPTH 50. FT
 SHORELINE LENGTH 5.4 MI
 SHORELINE CONFIGURATION 1.6
 DEVELOPMENT OF VOLUME 0.46
 BOTTOM SLOPE 0.90 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 93 %
 NUMBER OF NEARSHORE HOMES 381
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URRAN 0 %
 RESIDENTIAL SUBURBAN 12 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 71 %
 LAKE SURFACE 17 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

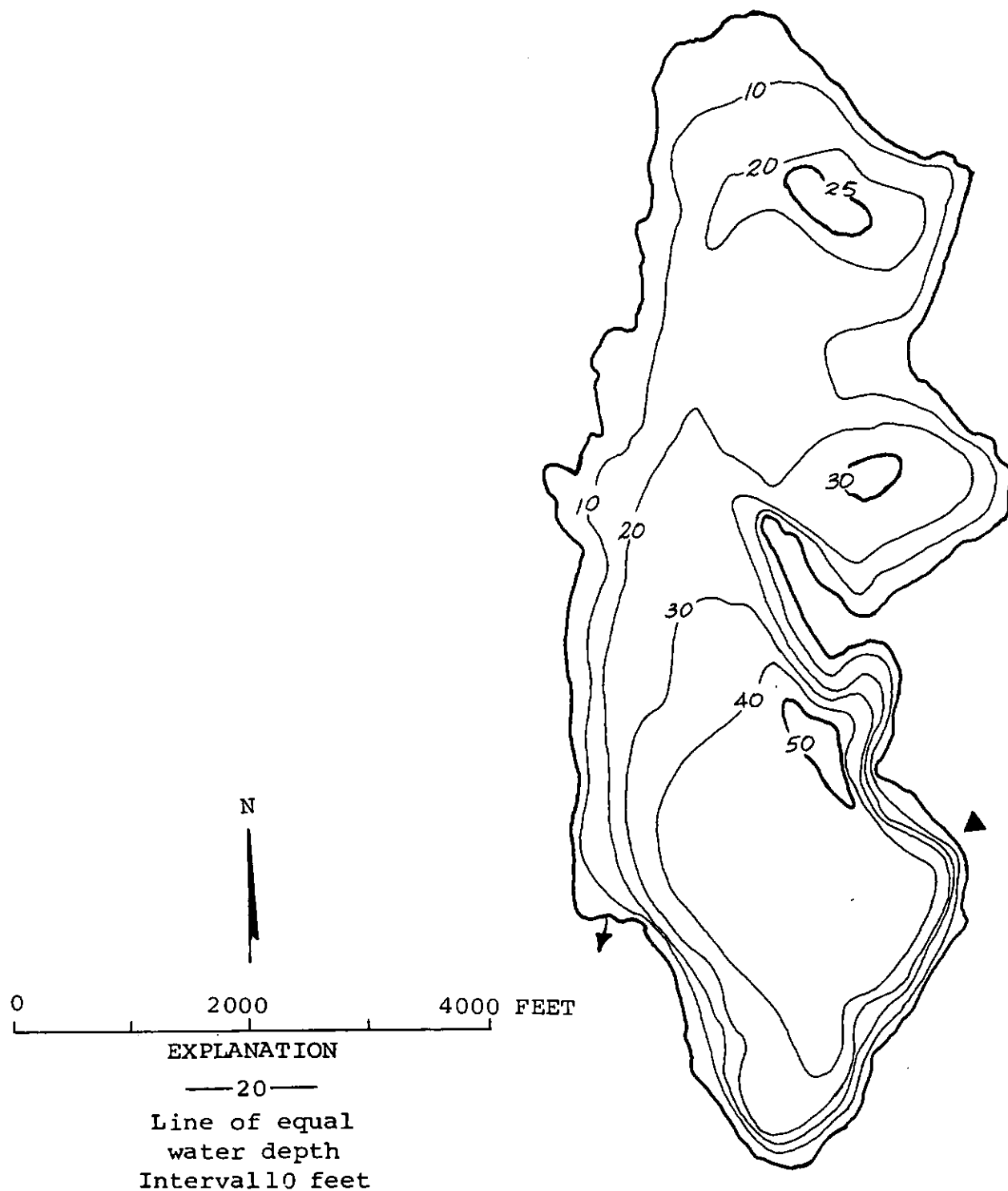
 SAMPLE SITE 1
 DATE 7/27/72
 TIME 940 945
 DEPTH (FT) 3. 43.
 DISSOLVED NITRATE (N) 0.05 0.05
 DISSOLVED NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.73
 TOTAL ORGANIC NITROGEN (N) 0.45 0.47
 TOTAL PHOSPHORUS (P) 0.005 0.016
 DISSOLVED ORTHOPHOSPHATE (P) 0.003 0.003
 SPECIFIC CONDUCTANCE (MICROMHOS) 67 74
 WATER TEMPERATURE (DEG C) 20.9 10.1
 COLOR (PLATINUM-COBALT UNITS) 5 5
 SECCHI-DISC VISIBILITY (FT) 13
 DISSOLVED OXYGEN 9.0 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 6/27/72
 TIME 1015
 NUMBER OF FECAL COLIFORM SAMPLES 5
 FECAL COLIFORM, MINIMUM (COL./100ML) 2
 FECAL COLIFORM, MAXIMUM (COL./100ML) 28
 FECAL COLIFORM, MEAN (COL./100ML) 16

REMARKS

 THE LAKE HAS SEVERAL RESORTS AND A STATE PARK. THE LAKE RECEIVES HEAVY RECREATIONAL USE. THE LITTORAL BOTTOM IS GRAVEL AND SUPPORTED A SPARSE GROWTH OF MACROPHYTES. LAKE-STAGE RECORDS ARE MAINTAINED BY THE U.S. GEOLOGICAL SURVEY. IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES.



Goodwin Lake, Snohomish County. From Washington
Department of Game, May 12, 1952.



Goodwin Lake, Snohomish County. August 9, 1972. Approx. scale 1:13,000.

GREIDER, BIG LAKE

SNOHOMISH COUNTY

LATITUDE 47°57'32" LONGITUDE 121°34'54" T29N-R9E-36
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.87 SQ MI
ALTITUDE 2935. FT
LAKE AREA 54. ACRES
LAKE VOLUME 3000. ACRE-FT
MEAN DEPTH 56. FT
MAXIMUM DEPTH 110. FT
SHORELINE LENGTH 1.3 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.49
BOTTOM SLOPE 6.6 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 90 %
LAKE SURFACE 10 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 8/ 1/73
TIME 1540 1545
DEPTH (FT) 3. 72.
TOTAL NITRATE (N) 0.06 0.09
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.01 0.01
TOTAL ORGANIC NITROGEN (N) 0.08 0.04
TOTAL PHOSPHORUS (P) 0.002 0.004
TOTAL ORTHOPHOSPHATE (P) 0.001 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 9 10
WATER TEMPERATURE (DEG C) 19.8 4.2
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 38
DISSOLVED OXYGEN 8.8 10.5

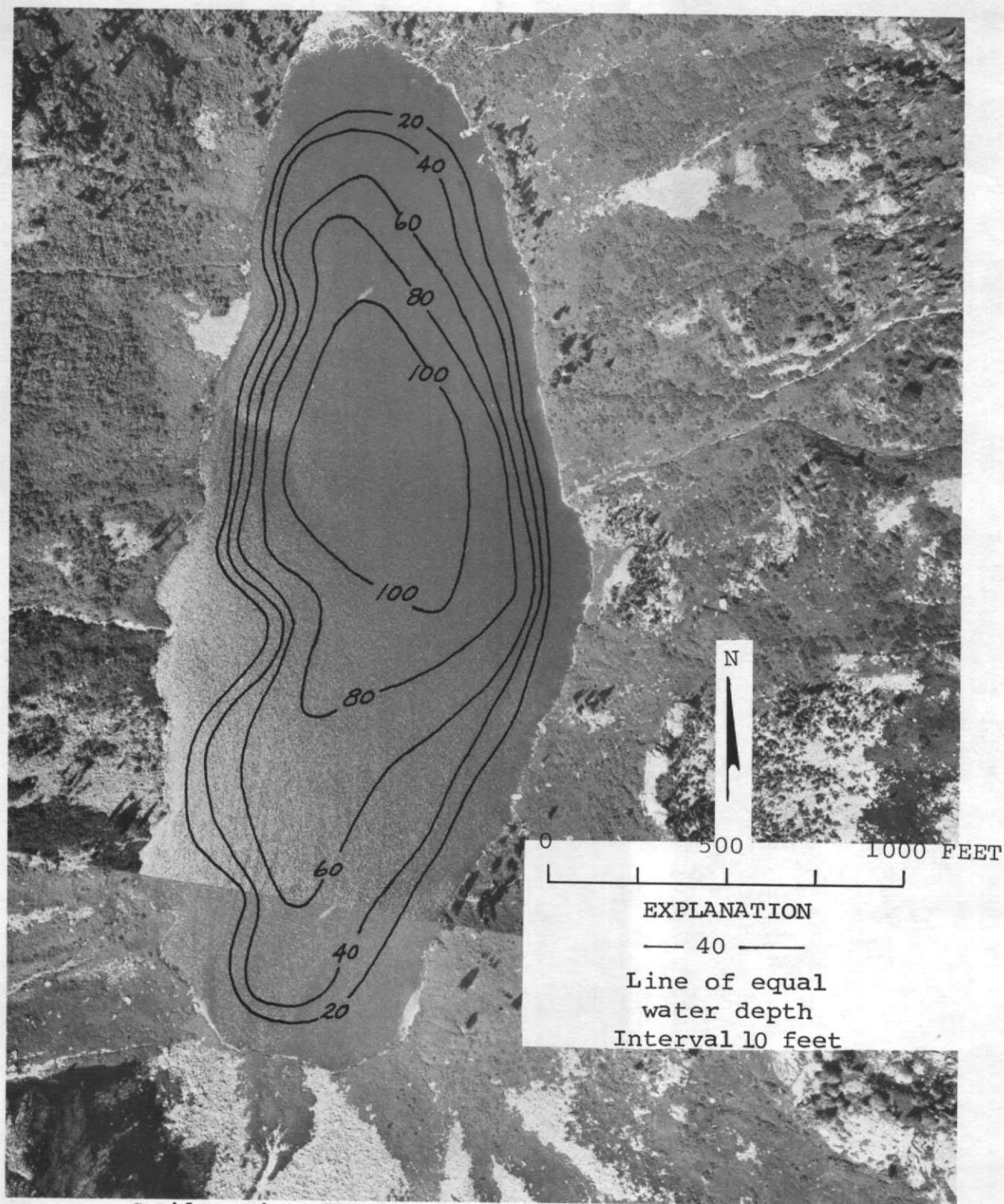
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE 8/ 1/73
TIME 1550
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE LAKE IS SURROUNDED BY STEEP ROCK CLIFFS. NO MACROPHYTES WERE OBSERVED.



Greider, Big Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 14, 1973.
Aerial photo, August 7, 1973.

HANNAH LAKE

SNOHOMISH COUNTY

LATITUDE 47°48'25" LONGITUDE 121°52'51" T27N-R7E-23
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.44 SQ MI
ALTITUDE 1094. FT
LAKE AREA 49. ACRES
LAKE VOLUME 630. ACRE-FT
MEAN DEPTH 13. FT
MAXIMUM DEPTH 32. FT
SHORELINE LENGTH 1.3 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.40
BOTTOM SLOPE 1.9 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 83 %
LAKE SURFACE 17 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

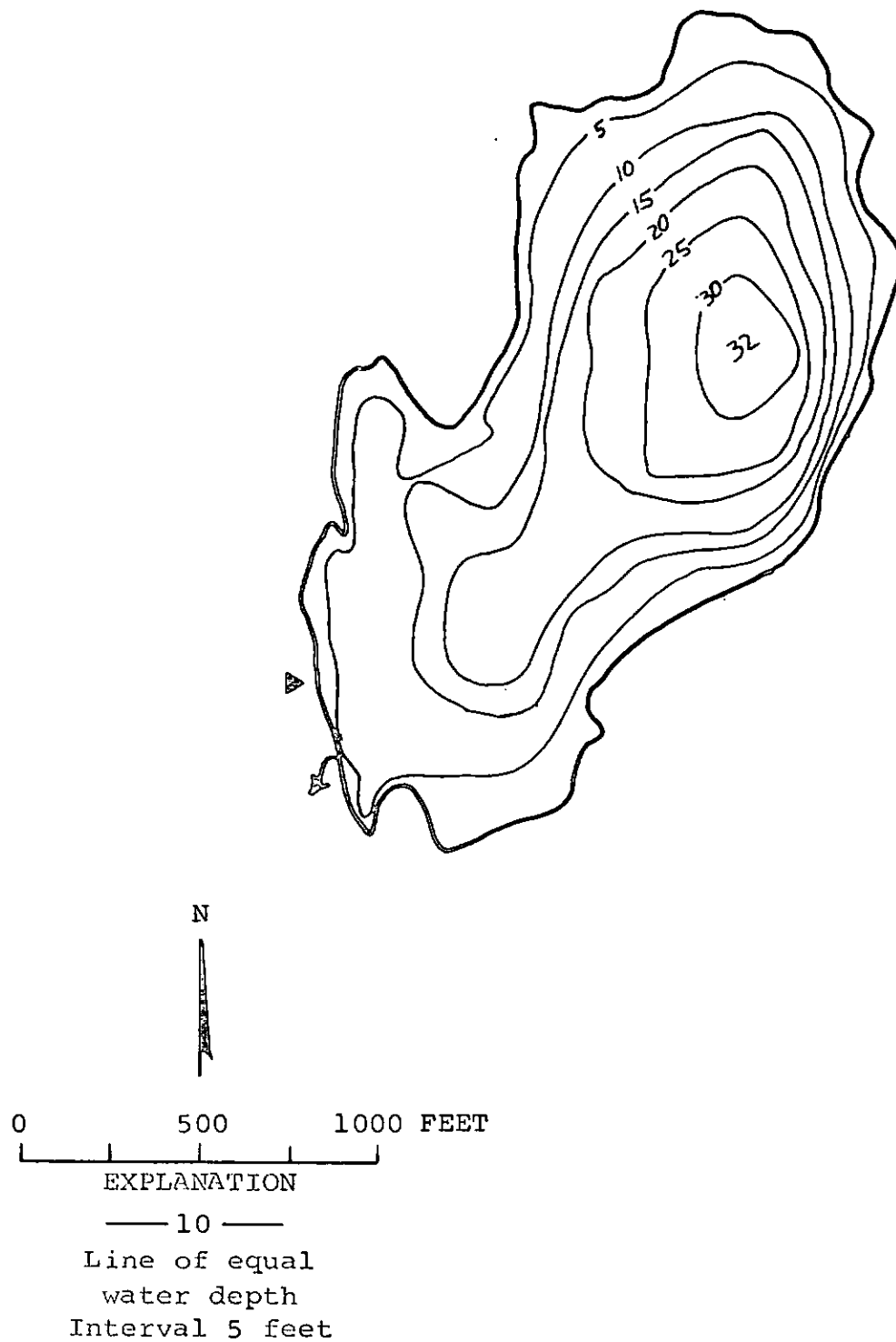
SAMPLE SITE 1
DATE 7/30/73
TIME 1305 1310
DEPTH (FT) 3. 26.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.08 0.22
TOTAL ORGANIC NITROGEN (N) 0.19 0.12
TOTAL PHOSPHORUS (P) 0.007 0.049
TOTAL ORTHOPHOSPHATE (P) 0.002 0.016
SPECIFIC CONDUCTANCE (MICROMHOS) 22 25
WATER TEMPERATURE (DEG C) 23.0 11.4
COLOR (PLATINUM-COBALT UNITS) 0 45
SECCHI-DISC VISIBILITY (FT) 12
DISSOLVED OXYGEN 8.3 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 7/30/73
TIME 1225
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE LAKE HAD DENSE BEDS OF EMERSED PLANTS AND MANY LOGS AND SNAGS.
THE LITTORAL BOTTOM IS SOFT MUCK.



Hannan Lake, Snohomish County. From Washington
Department of Game, March 18, 1953.



Hannan Lake, Snohomish County. May 13, 1973. Approx. scale 1:4800.

HELENA LAKE

SNOHOMISH COUNTY

LATITUDE 48° 8'16" LONGITUDE 121°33'24" T31N-R10E-31
 SKAGIT RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.36 SQ MI
 ALTITUDE 3080. FT
 LAKE AREA 24. ACRES
 LAKE VOLUME 950. ACRE-FT
 MEAN DEPTH 39. FT
 MAXIMUM DEPTH 80. FT
 SHORELINE LENGTH 1.0 MI
 SHORELINE CONFIGURATION 1.5
 DEVELOPMENT OF VOLUME 0.49
 BOTTOM SLOPE 6.9 %
 BASIN GEOLOGY IGNEOUS
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 0 %
 FOREST OR UNPRODUCTIVE 97 %
 LAKE SURFACE 3 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

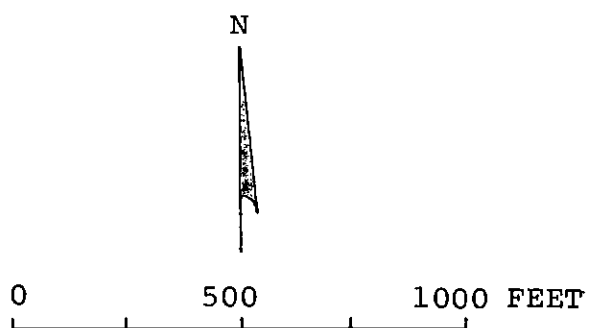
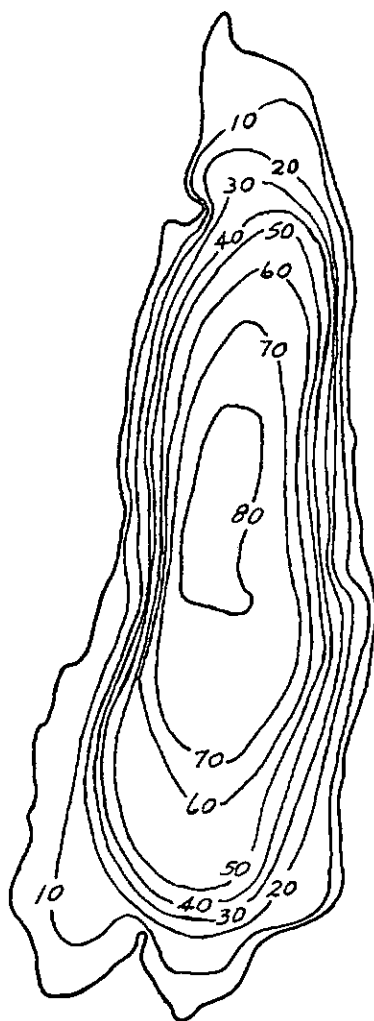
 SAMPLE SITE 1
 DATE 8/19/73
 TIME 1405 1410
 DEPTH (FT) 3. 75.
 TOTAL NITRATE (N) 0.12 0.12
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.03 0.03
 TOTAL ORGANIC NITROGEN (N) 0.06 0.10
 TOTAL PHOSPHORUS (P) 0.003 0.004
 TOTAL ORTHOPHOSPHATE (P) 0.000 0.001
 SPECIFIC CONDUCTANCE (MICROMHOS) 15 21
 WATER TEMPERATURE (DEG C) 14.7 3.8
 COLOR (PLATINUM-COBALT UNITS) 5 10
 SECCHI-DISC VISIBILITY (FT) 3.8
 DISSOLVED OXYGEN 9.2 6.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/19/73
 TIME 1425
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) <1
 FECAL COLIFORM, MEAN (COL./100ML) <1

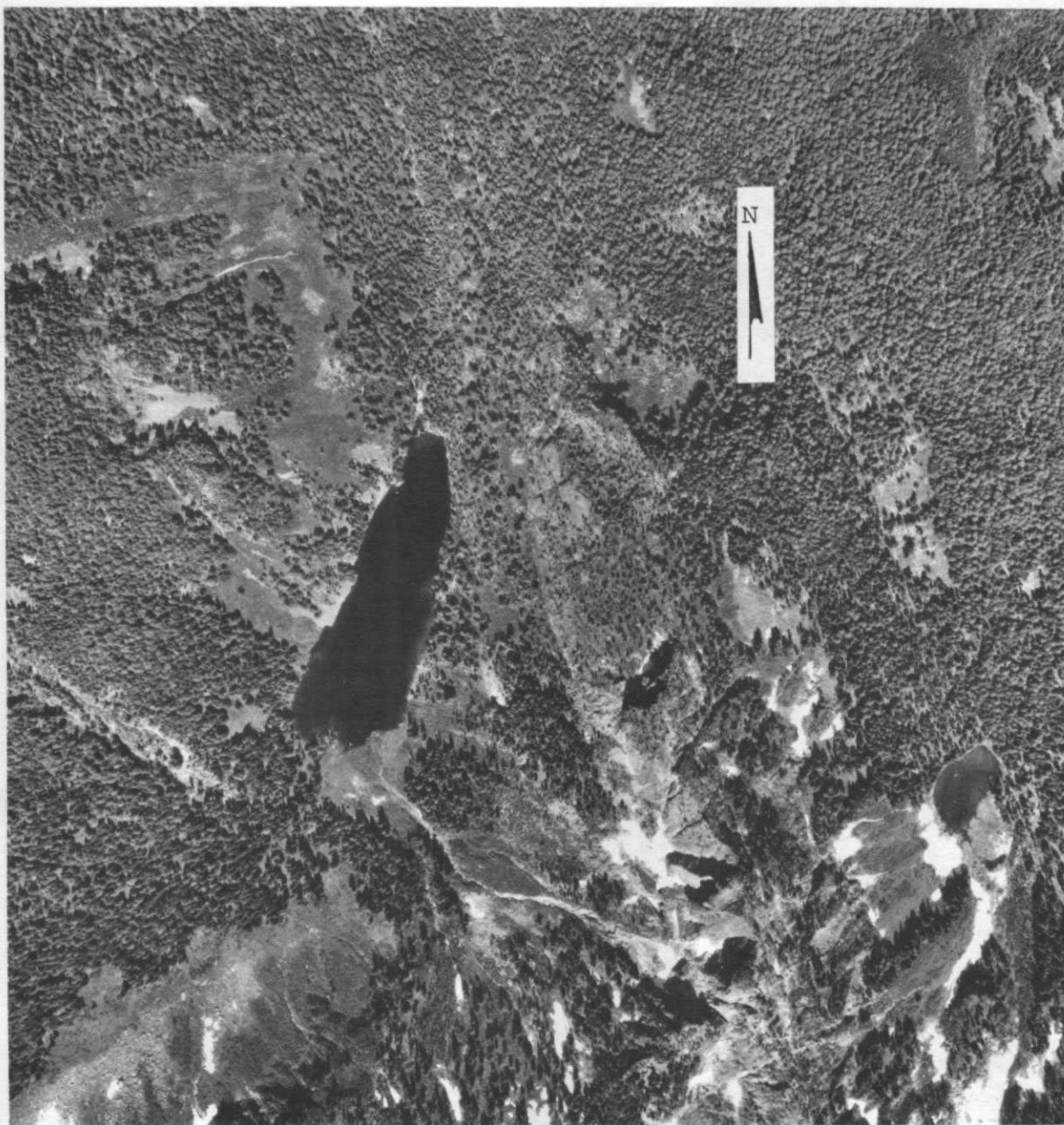
REMARKS

 MOST OF THE LAKE IS SURROUNDED BY STEEP ROCK SLOPES WITH A THIN TIMBER COVER.



EXPLANATION
 — 20 —
 Line of equal
 water depth
 Interval 10 feet

Helena Lake, Snohomish County. From U.S. Geological Survey, July 17, 1973.



Helena Lake, Snohomish County. July 18, 1969. Approx. scale 1:12,000.

LATITUDE 48° 9'30" LONGITUDE 122°19'42" T31N-R4E-20
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.46 SQ MI
 ALTITUDE 238. FT
 LAKE AREA 28. ACRES
 LAKE VOLUME 790. ACRE-FT
 MEAN DEPTH 29. FT
 MAXIMUM DEPTH 50. FT
 SHORELINE LENGTH 0.87 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.56
 BOTTOM SLOPE 4.0 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 65 %
 NUMBER OF NEARSHORE HOMES 22
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 4 %
 AGRICULTURAL 4 %
 FOREST OR UNPRODUCTIVE 83 %
 LAKE SURFACE 9 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

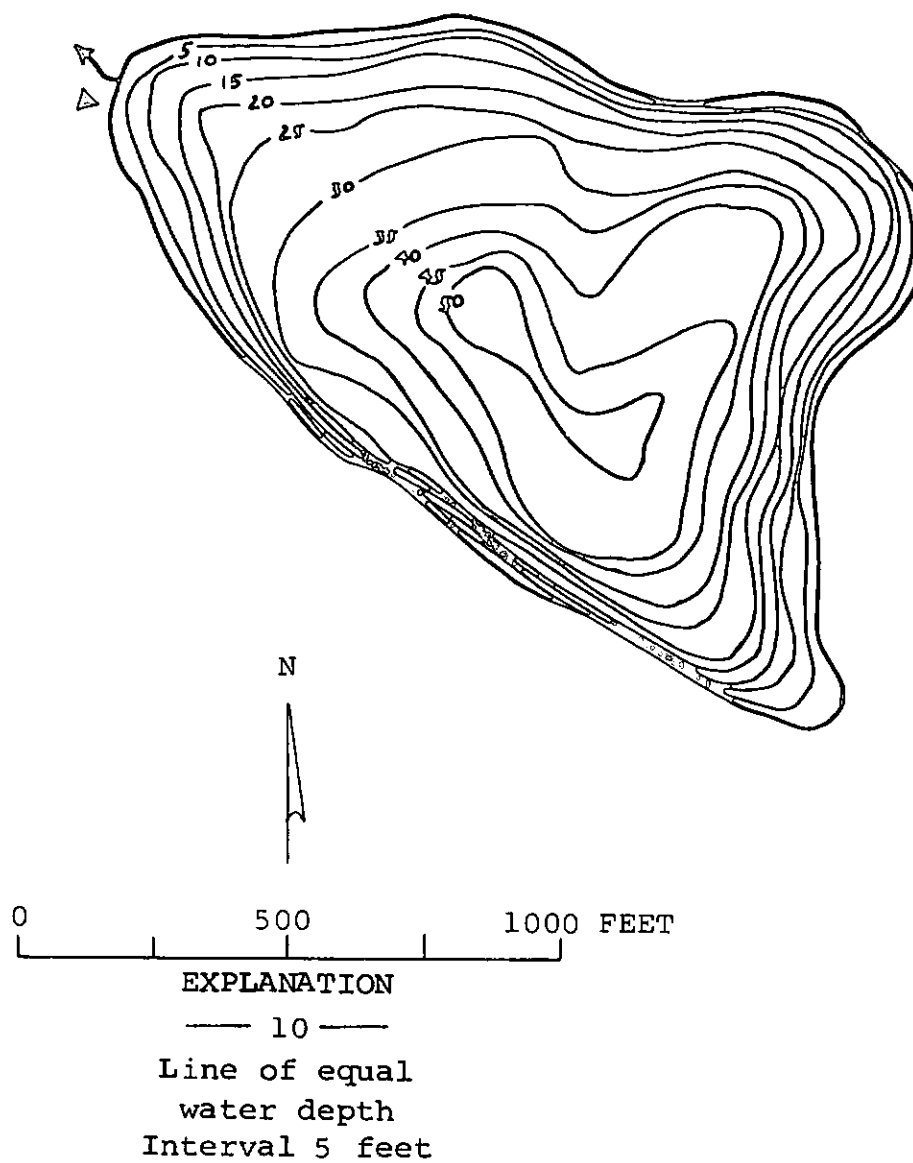
 SAMPLE SITE 1
 DATE 7/18/73
 TIME 1020 1030
 DEPTH (FT) 3. 115.
 TOTAL NITRATE (N) 0.01 0.08
 TOTAL NITRITE (N) 0.00 0.01
 TOTAL AMMONIA (N) 0.06 0.58
 TOTAL ORGANIC NITROGEN (N) 1.8 1.2
 TOTAL PHOSPHORUS (P) 0.060 0.19
 DISSOLVED ORTHOPHOSPHATE (P) 0.005 0.13
 SPECIFIC CONDUCTANCE (MICROMHOS) 85 80
 WATER TEMPERATURE (DEG C) 21.3 5.0
 COLOR (PLATINUM-COBALT UNITS) 10 20
 SECCHI-DISC VISIBILITY (FT) 7
 DISSOLVED OXYGEN 10.4 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/18/73
 TIME 1125
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 6
 FECAL COLIFORM, MEAN (COL./100ML) 4

REMARKS

 THE LITTORAL BOTTOM IS MOSTLY MUCK AND SILT. SUBMERGED LOGS AND WOOD
 DEBRIS COVERED THE NEARSHORE BOTTOM. IN 1973 THE U.S. GEOLOGICAL SURVEY
 SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 15,
 1973.



Howard Lake, Snohomish County. From Washington
Department of Game, July 30, 1947.



Howard Lake, Snohomish County. July 14, 1973. Approx. scale 1:4800.

LATITUDE 47°57'52" LONGITUDE 121°53'54" T29N-R7E-27
SNOHOMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

-----		-----	
DRAINAGE AREA	0.90 SQ MI	RESIDENTIAL DEVELOPMENT	6 %
ALTITUDE	540. FT		
LAKE AREA	21. ACRES	NUMBER OF NEARSHORE HOMES	2
LAKE VOLUME	390. ACRE-FT		
MEAN DEPTH	19. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	33. FT		
SHORELINE LENGTH	0.84 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.57	AGRICULTURAL	0 %
BOTTOM SLOPE	3.1 %	FOREST OR UNPRODUCTIVE	96 %
Basin GEOLOGY	SED./META.	LAKE SURFACE	4 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

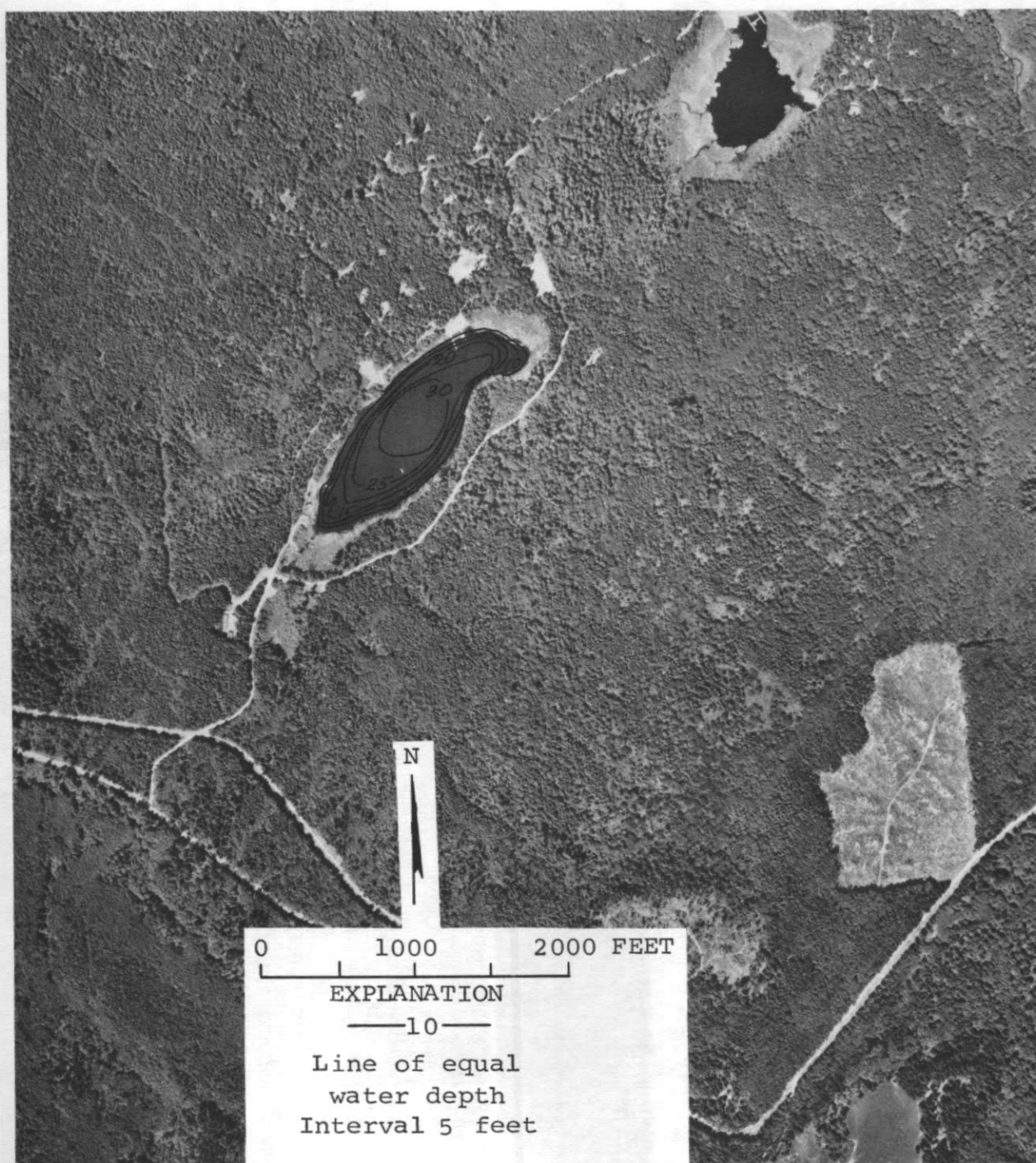
WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1
DATE	8/ 2/74
TIME	1300 1305
DEPTH (FT)	3. 26.
TOTAL NITRATE (N)	0.00 0.03
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.06 0.14
TOTAL ORGANIC NITROGEN (N)	0.21 0.08
TOTAL PHOSPHORUS (P)	0.008 0.014
TOTAL ORTHOPHOSPHATE (P)	0.005 0.006
SPECIFIC CONDUCTANCE (MICROMHOS)	27 27
WATER TEMPERATURE (DEG C)	24.2 6.0
COLOR (PLATINUM-COBALT UNITS)	5 10
SECCHI-DISC VISIBILITY (FT)	8
DISSOLVED OXYGEN	8.4 0.1
LAKE SHORELINE COVERED BY EMERSED PLANTS	75-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	8/ 2/74
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

A THIN MARGIN OF EMERSED PLANTS COVERED THE SHORELINE, WHICH IS LITTERED WITH LOGS. THE LITTORAL BOTTOM IS SOFT MUCK. A LOW-DENSITY ALGAL BLOOM WAS OBSERVED. A BOY SCOUT CAMP IS LOCATED ON THE LAKE.



Hughes Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, February 14, 1974.
Aerial photo, June 2, 1970.

INDIGO LAKE

SNOHOMISH COUNTY

LATITUDE 48°13'15" LONGITUDE 121°18'34" T32N-R12E-31

SKAGIT RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

DRAINAGE AREA	0.18 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	4782. FT	NUMBER OF NEARSHORE HOMES	0
LAKE AREA	19. ACRES	LAND USE IN DRAINAGE BASIN	
LAKE VOLUME	1100. ACRE-FT	RESIDENTIAL URBAN	0 %
MEAN DEPTH	59. FT	RESIDENTIAL SUBURBAN	0 %
MAXIMUM DEPTH	120. FT	AGRICULTURAL	0 %
SHORELINE LENGTH	0.70 MI	FOREST OR UNPRODUCTIVE	84 %
SHORELINE CONFIGURATION	1.1	LAKE SURFACE	16 %
DEVELOPMENT OF VOLUME	0.47		
BOTTOM SLOPE	12. %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1
DATE	8/19/73
TIME	1240 1245
DEPTH (FT)	3. 89.
TOTAL NITRATE (N)	0.01 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.01 0.19
TOTAL ORGANIC NITROGEN (N)	0.05 0.23
TOTAL PHOSPHORUS (P)	0.001 0.024
TOTAL ORTHOPHOSPHATE (P)	0.001 0.004
SPECIFIC CONDUCTANCE (MICROMHOS)	35 77
WATER TEMPERATURE (DEG C)	12.1 3.5
COLOR (PLATINUM-COBALT UNITS)	5 15
SECCHI-DISC VISIBILITY (FT)	50
DISSOLVED OXYGEN	8.6 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	8/19/73
TIME	1250
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A SMALL LAKE WHICH IS WELL SHELTERED BY THE SURROUNDING MOUNTAINS. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. NO ROOTED AQUATIC PLANTS WERE OBSERVED.



N



0 500 1000 FEET

EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Indigo Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 17, 1973.
Aerial photo, August 2, 1973.

ISABEL LAKE

SNOHOMISH COUNTY

LATITUDE 47°52' 0" LONGITUDE 121°36' 9" T28N-R9E-36
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	3.26 SQ MI
ALTITUDE	2842. FT
LAKE AREA	180. ACRES
LAKE VOLUME	19000. ACHE-FT
MEAN DEPTH	110. FT
MAXIMUM DEPTH	200. FT
SHORELINE LENGTH	3.5 MI
SHORELINE CONFIGURATION	1.8
DEVELOPMENT OF VOLUME	0.53
BOTTOM SLOPE	6.4 %
BASIN GEOLOGY	IGNEOUS
INFLOW	PERENNIAL
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	0 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	91 %
LAKE SURFACE	9 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

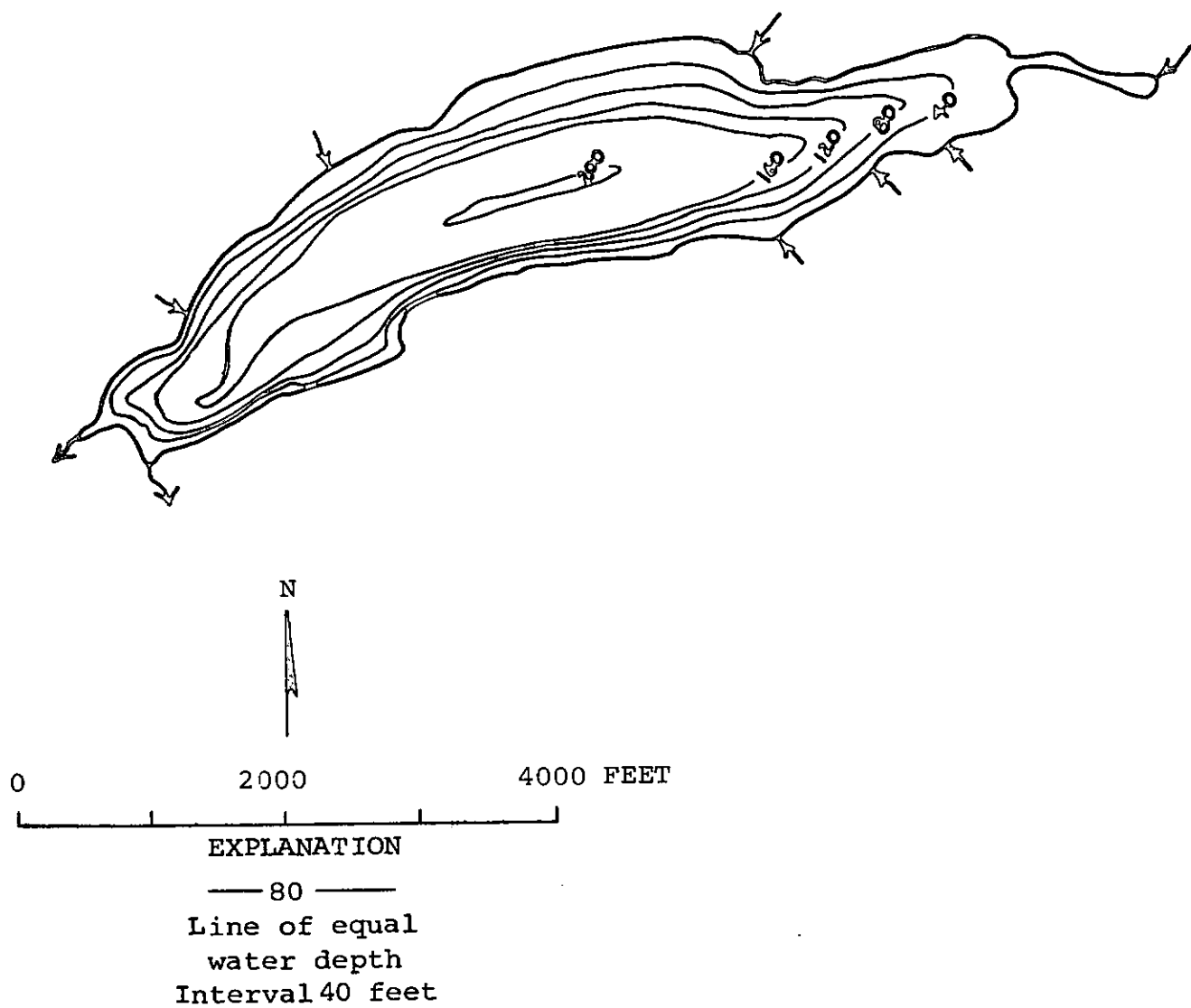
SAMPLE SITE	1
DATE	7/27/73
TIME	1620 1630
DEPTH (FT)	3. 171.
TOTAL NITRATE (N)	0.05 0.10
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.05 0.03
TOTAL ORGANIC NITROGEN (N)	0.03 0.03
TOTAL PHOSPHORUS (P)	0.006 0.007
TOTAL ORTHOPHOSPHATE (P)	0.001 0.001
SPECIFIC CONDUCTANCE (MICROMHOS)	12 12
WATER TEMPERATURE (DEG C)	19.7 4.0
COLOR (PLATINUM-COBALT UNITS)	0 0
SECCHI-DISC VISIRILITY (FT)	32
DISSOLVED OXYGEN	8.5 9.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

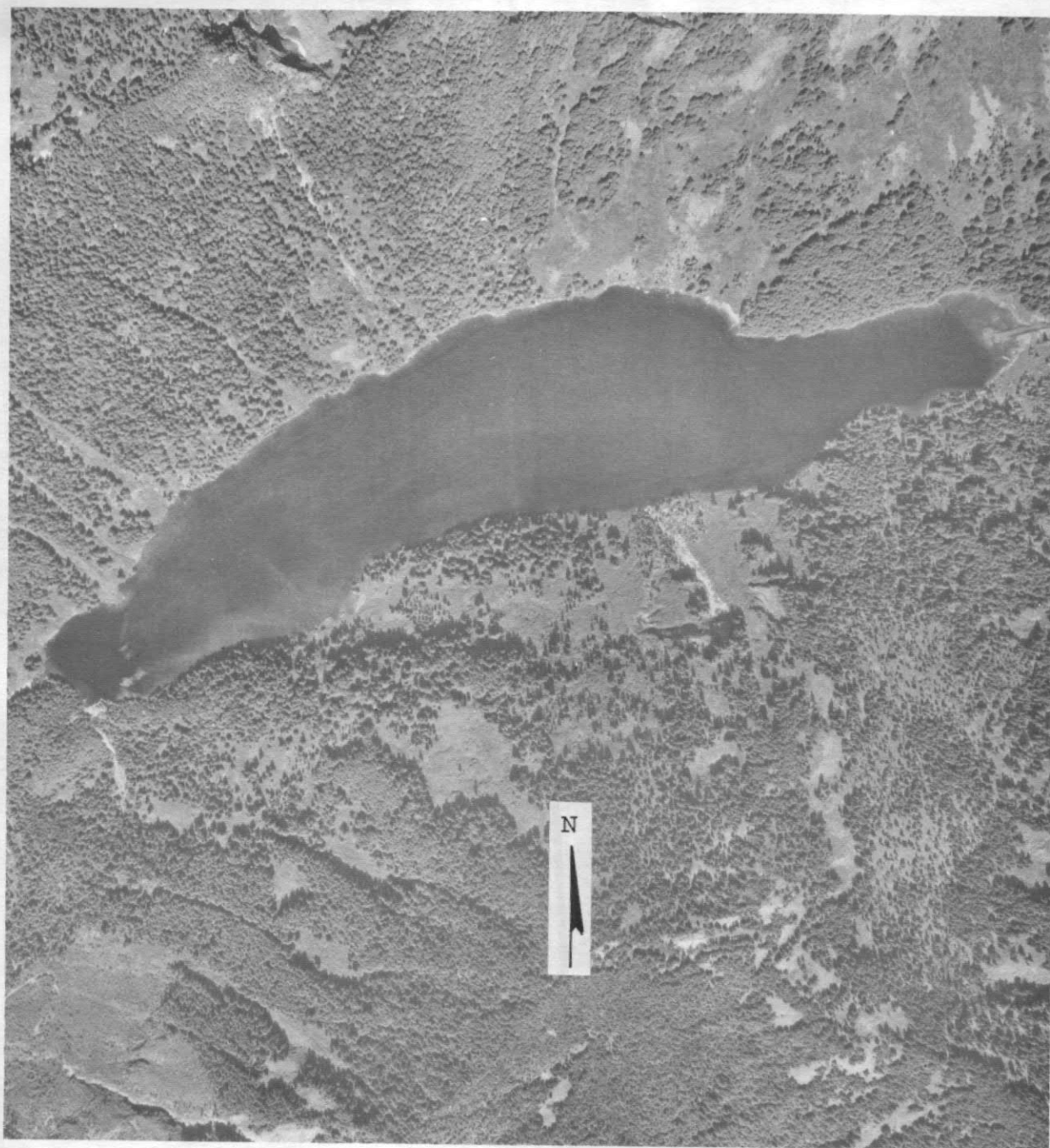
DATE	7/27/73
TIME	1440
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A LARGE LAKE FED BY SEVERAL UNNAMED TRIBUTARIES. A LARGE DELTA DEPOSIT HAS FORMED AT THE MAIN INFLOW. NO ROOTED AQUATIC PLANTS WERE OBSERVED.



Isabel Lake, Snohomish County. From U.S. Geological Survey, August 26, 1954.



Isabel Lake, Snohomish County. July 18, 1969. Approx. scale 1:12,000.

JANUS LAKE

SNOHOMISH COUNTY

LATITUDE 47°49'33" LONGITUDE 121° 5'52" T27N-R13E-14
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.85 SQ MI
ALTITUDE 4146. FT
LAKE AREA 25. ACRES
LAKE VOLUME 240. ACRE-FT
MEAN DEPTH 10. FT
MAXIMUM DEPTH 17. FT
SHORELINE LENGTH 0.95 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.56
BOTTOM SLOPE 1.4 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 95 %
LAKE SURFACE 5 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

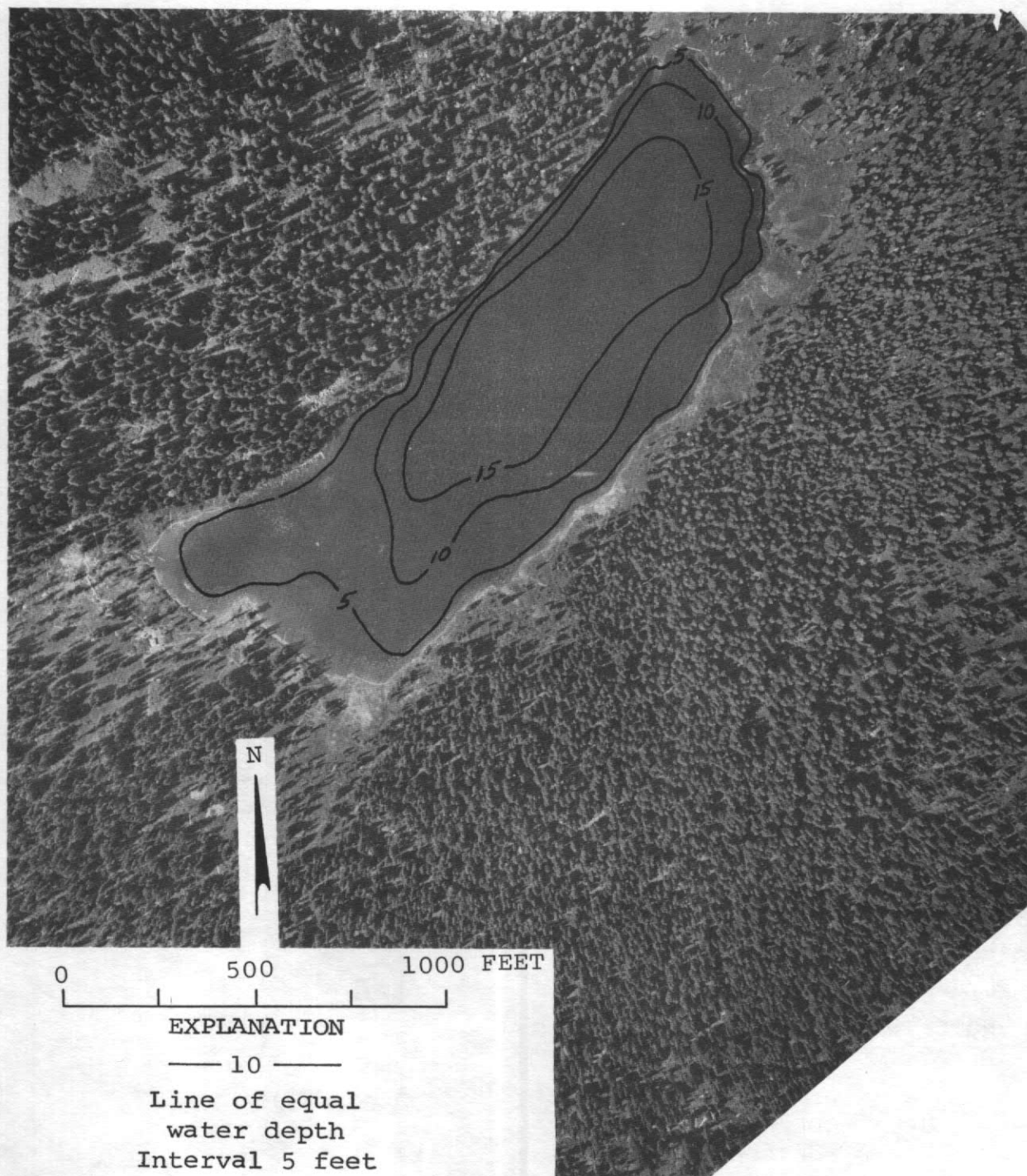
DATE 7/31/73
TIME 1745 1750
DEPTH (FT) 3. 12.
TOTAL NITRATE (N) 0.02 0.02
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.03 0.04
TOTAL ORGANIC NITROGEN (N) 0.08 0.07
TOTAL PHOSPHORUS (P) 0.004 0.009
TOTAL ORTHOPHOSPHATE (P) 0.001 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 11 11
WATER TEMPERATURE (DEG C) 21.2 17.9
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 16
DISSOLVED OXYGEN 7.5 8.1

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/31/73
TIME 1755
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

A SHALLOW ALPINE LAKE. A FLAT MEADOW IS LOCATED ON THE NORTH END OF THE LAKE. SCATTERED BEDS OF EMERSED AND SUBMERSED PLANTS WERE OBSERVED.



Janus Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 6, 1973.
Aerial photo, August 3, 1973.

LATITUDE 48° 6'54" LONGITUDE 121°35'55" T30N-R9E-1
STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.35 SQ MI
ALTITUDE 3182. FT
LAKE AREA 20. ACRES
LAKE VOLUME 610. ACRE-FT
MEAN DEPTH 31. FT
MAXIMUM DEPTH 53. FT
SHORELINE LENGTH 0.67 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.58
BOTTOM SLOPE 5.1 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 91 %
LAKE SURFACE 9 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

DATE 8/ 2/73
TIME 1115 1120
DEPTH (FT) 3. 46.
TOTAL NITRATE (N) 0.02 0.05
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.03 0.11
TOTAL ORGANIC NITROGEN (N) 0.06 0.03
TOTAL PHOSPHORUS (P) 0.004 0.017
TOTAL ORTHOPHOSPHATE (P) 0.004 0.007
SPECIFIC CONDUCTANCE (MICROMHOS) 12 14
WATER TEMPERATURE (DEG C) 19.4 3.9
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 29
DISSOLVED OXYGEN 8.0 0.4

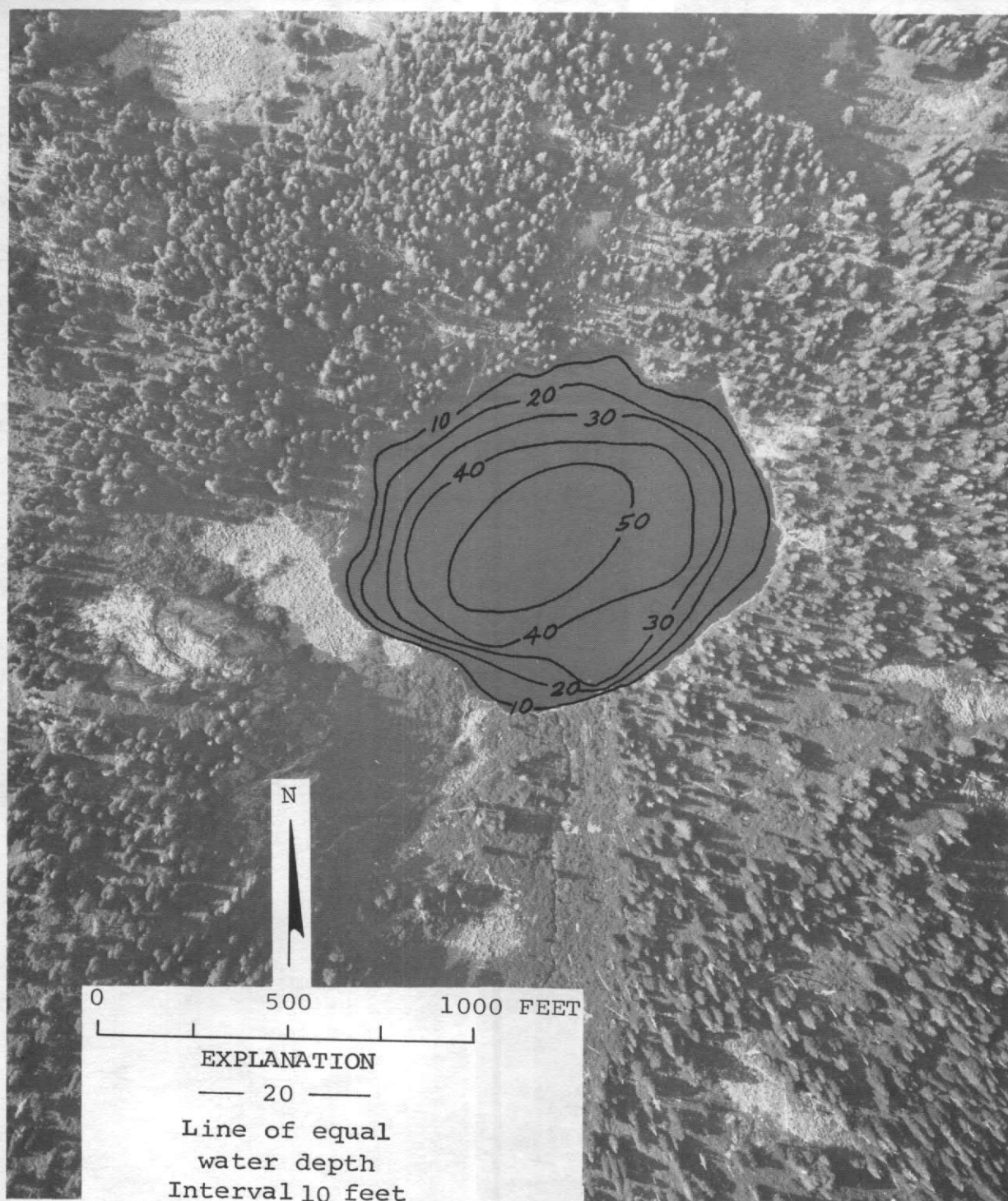
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

1- 10 %
NONE OR <1 %

DATE 8/ 2/73
TIME 1125
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

A SMALL LAKE WELL SHELTERED BY THE SURROUNDING MOUNTAINS. DISSOLVED OXYGEN WAS DEPLETED NEAR THE BOTTOM OF THE LAKE.



Kelcema Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 16, 1973.
Aerial photo, August 2, 1973.

KELLOGG LAKE

SNOHOMISH COUNTY

LATITUDE 47°54' 8" LONGITUDE 121°45'32" T28N-R8E-22
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 2.82 SQ MI
ALTITUDE 650. FT
LAKE AREA 16. ACRES
LAKE VOLUME 210. ACRE-FT
MEAN DEPTH 13. FT
MAXIMUM DEPTH 23. FT
SHORELINE LENGTH 0.74 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.57
BOTTOM SLOPE 2.4 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 99 %
LAKE SURFACE 1 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

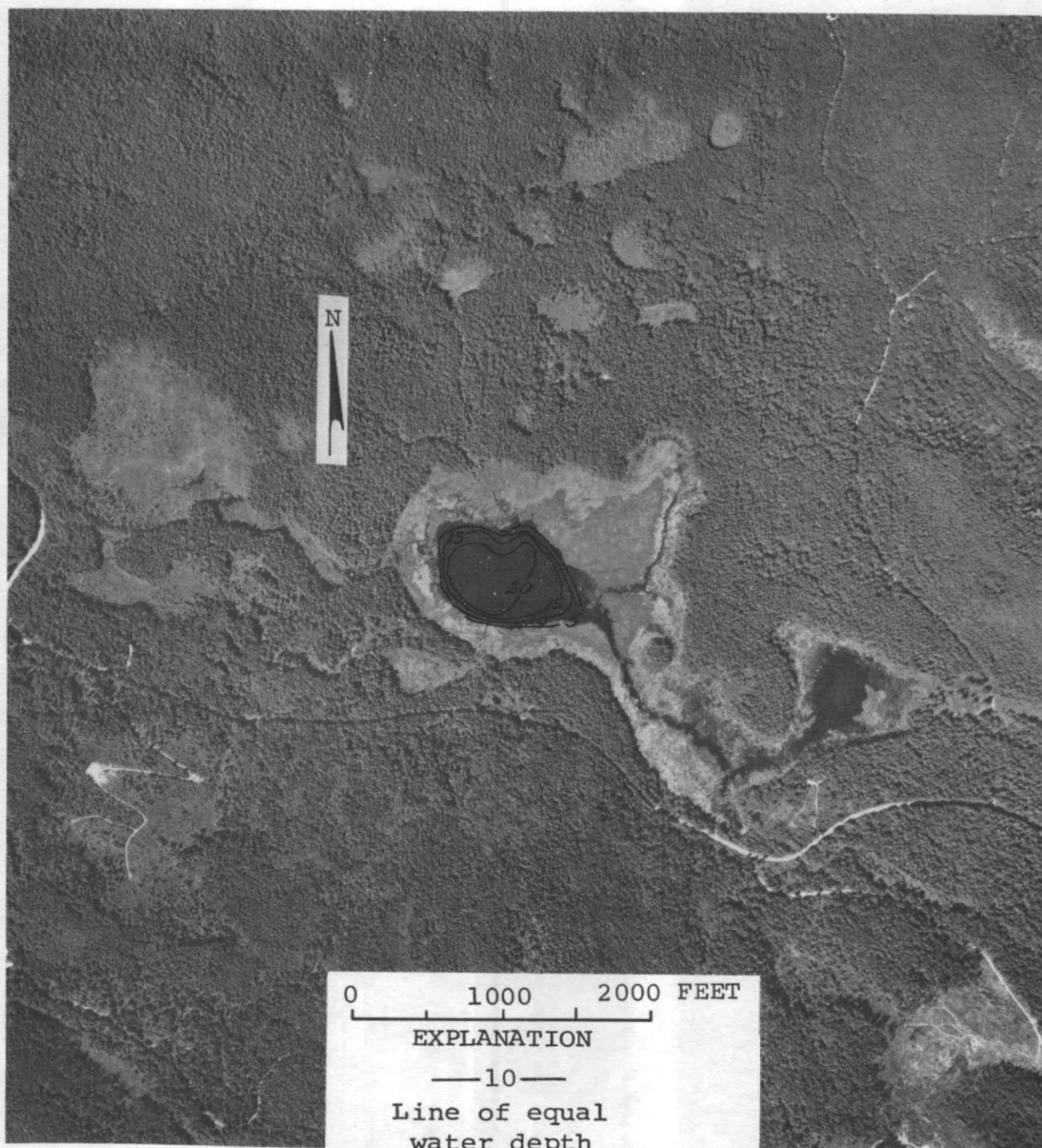
SAMPLE SITE 1
DATE 8/ 2/74
TIME 1135 1140
DEPTH (FT) 3. 16.
TOTAL NITRATE (N) 0.35 0.06
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.05 0.32
TOTAL ORGANIC NITROGEN (N) 0.49 0.40
TOTAL PHOSPHORUS (P) 0.010 0.033
TOTAL ORTHOPHOSPHATE (P) 0.003 0.007
SPECIFIC CONDUCTANCE (MICROMHOS) 35 40
WATER TEMPERATURE (DEG C) 18.4 8.8
COLOR (PLATINUM-COBALT UNITS) 15 40
SECCHI-DISC VISIBILITY (FT) 10
DISSOLVED OXYGEN 13.8 1.0

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 2/74
TIME 1155
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 8
FECAL COLIFORM, MEAN (COL./100ML) 6

REMARKS

THE LAKE HAS TWO ARMS CONNECTED BY A NARROW WATERWAY. THE SHORELINE IS BOGGY AND MARSHY. EMERSED PLANTS AND FALLEN LOGS COVERED MOST OF THE SHORELINE. THE LITTORAL BOTTOM IS MUCK.



Kellogg Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, February 14, 1974.
Aerial photo, July 18, 1969.

K1 LAKE

SNOHOMISH COUNTY

LATITUDE 48° 9'25" LONGITUDE 122°15'45" T31N-R4E-23
 STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.72 SQ MI
 ALTITUDE 414. FT
 LAKE AREA 98. ACRES
 LAKE VOLUME 3300. ACRE-FT
 MEAN DEPTH 33. FT
 MAXIMUM DEPTH 70. FT
 SHORELINE LENGTH 1.9 MI
 SHORELINE CONFIGURATION 1.3
 DEVELOPMENT OF VOLUME 0.47
 BOTTOM SLOPE 3.0 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 83 %
 NUMBER OF NEARSHORE HOMES 82
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 11 %
 AGRICULTURAL 6 %
 FOREST OR UNPRODUCTIVE 62 %
 LAKE SURFACE 21 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

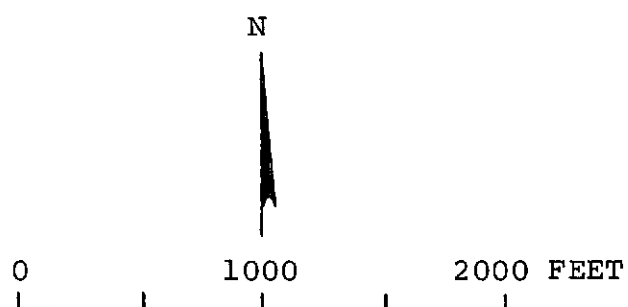
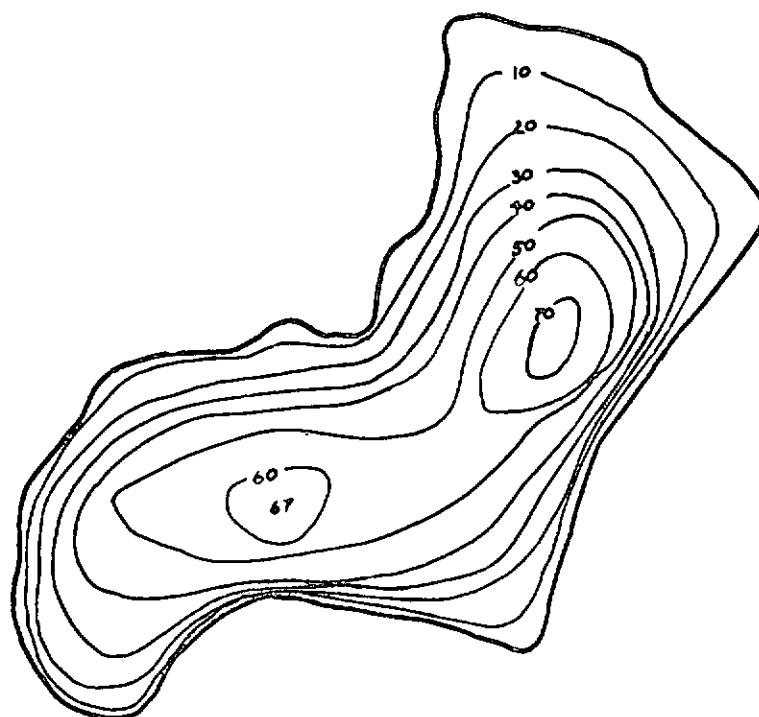
 DATE 1
 6/20/74
 TIME 1430 1435
 DEPTH (FT) 3. 56.
 TOTAL NITRATE (N) 0.16 0.18
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.05 0.11
 TOTAL ORGANIC NITROGEN (N) 0.25 0.15
 TOTAL PHOSPHORUS (P) 0.007 0.019
 DISSOLVED ORTHOPHOSPHATE (P) 0.004 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 36 32
 WATER TEMPERATURE (DEG C) 21.0 5.5
 COLOR (PLATINUM-COBALT UNITS) 10 10
 SECCHI-DISC VISIBILITY (FT) 12
 DISSOLVED OXYGEN 9.6 4.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 6/20/74
 TIME 1615
 NUMBER OF FECAL COLIFORM SAMPLES 4
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 7
 FECAL COLIFORM, MEAN (COL./100ML) 2

REMARKS

 RECREATIONAL USE OF THE LAKE IS HEAVY. IN 1974 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 2, 1974.



EXPLANATION
 — 20 —
 Line of equal
 water depth
 Interval 10 feet

Ki Lake, Snohomish County. From Washington Department of Game, June 13, 1950.



Ki Lake, Snohomish County. June 2, 1970. Approx. scale 1:12,000.

KING LAKE

SNOHOMISH COUNTY

LATITUDE 47°48'34" LONGITUDE 121°55'19" T27N-R7E-21
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.16 SQ MI
ALTITUDE 1359. FT
LAKE AREA 17. ACRES
LAKE VOLUME 350. ACRE-FT
MEAN DEPTH 21. FT
MAXIMUM DEPTH 65. FT
SHORELINE LENGTH 0.98 MI
SHORELINE CONFIGURATION 1.7
DEVELOPMENT OF VOLUME 0.32
BOTTOM SLOPE 6.7 %
BASIN GEOLOGY IGNEOUS
INFLOW PERENNIAL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 87 %
LAKE SURFACE 13 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

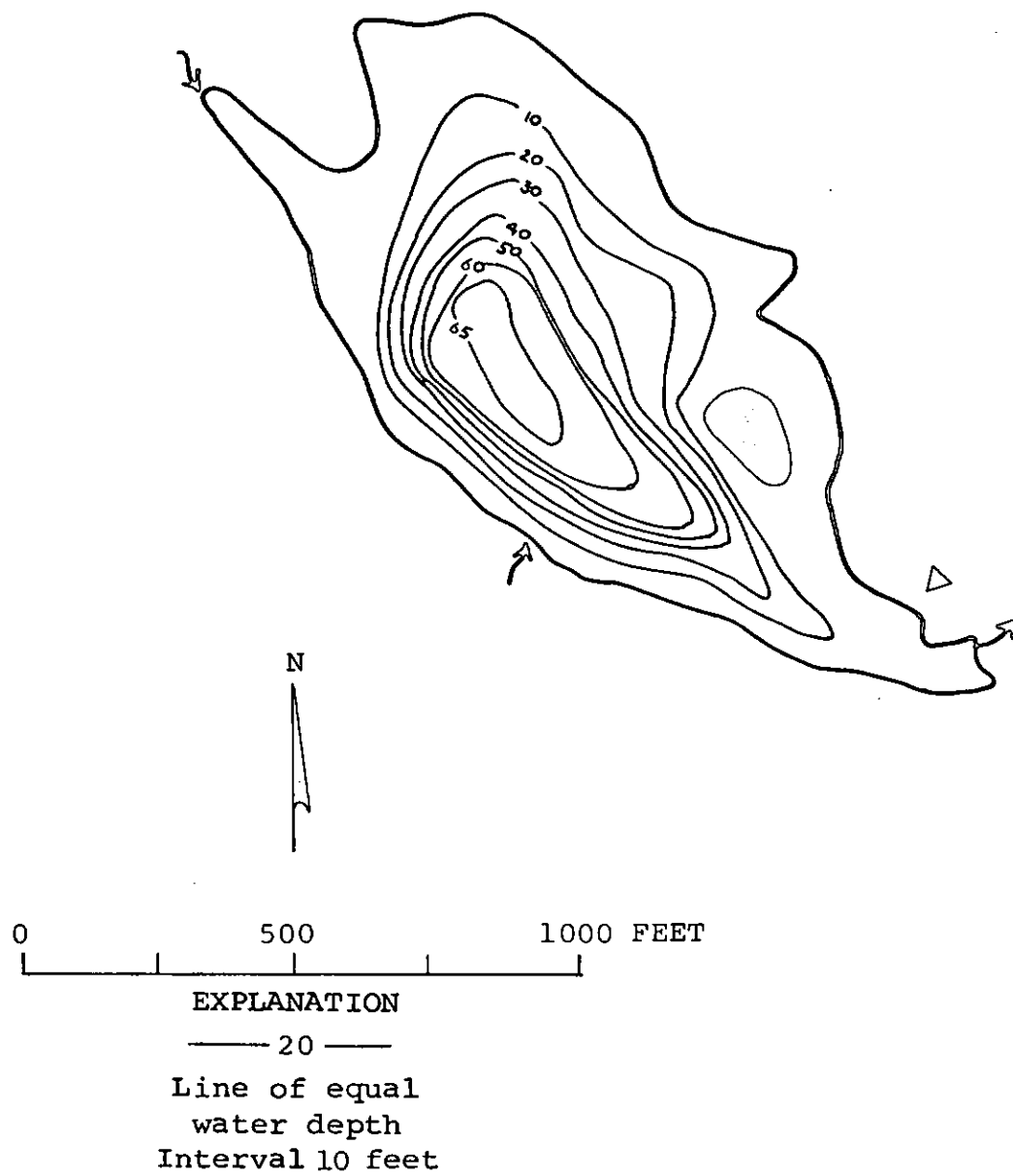
SAMPLE SITE 1
DATE 7/26/72
TIME 1045 1050
DEPTH (FT) 3. 59.
DISSOLVED NITRATE (N) 0.06 0.16
DISSOLVED NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.23 0.31
TOTAL ORGANIC NITROGEN (N) 0.22 0.07
TOTAL PHOSPHORUS (P) 0.018 0.013
DISSOLVED ORTHOPHOSPHATE (P) 0.005 0.006
SPECIFIC CONDUCTANCE (MICROMHOS) 30 30
WATER TEMPERATURE (DEG C) 19.6 4.7
COLOR (PLATINUM-COBALT UNITS) 15 25
SECCHI-DISC VISIBILITY (FT) 11
DISSOLVED OXYGEN 8.2 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

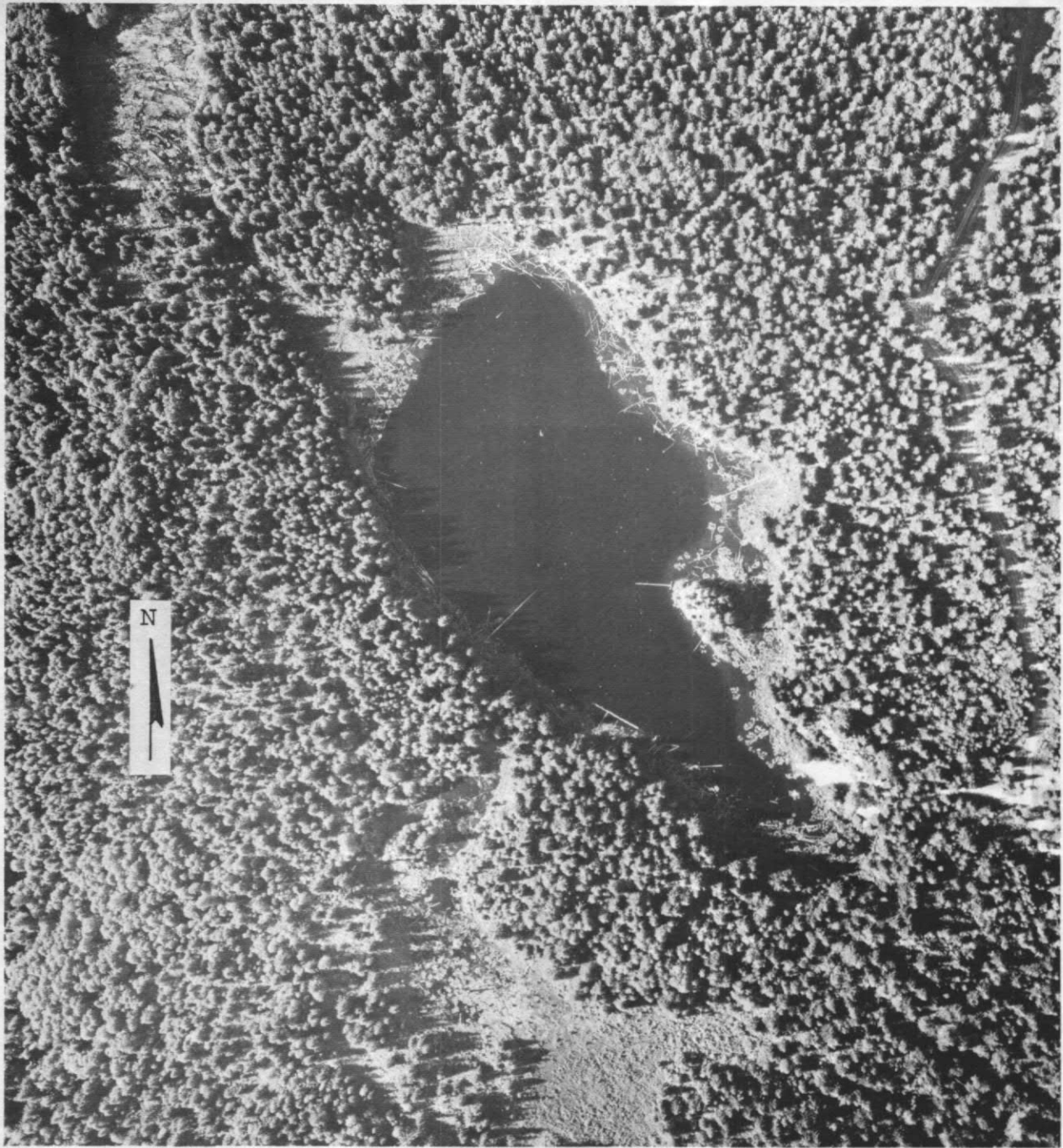
DATE 7/26/72
TIME 1130
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 20
FECAL COLIFORM, MAXIMUM (COL./100ML) 300
FECAL COLIFORM, MEAN (COL./100ML) 160

REMARKS

THE SHORELINE WAS COVERED WITH EMERSED PLANTS, LOGS, AND WOOD DEBRIS.
THE TRIBUTARY STREAM ON THE NORTH SIDE OF THE LAKE IS DAMMED BY BEAVERS.
IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE
PLANT SURVEY WAS MADE ON OCTOBER 12, 1972.



King Lake, Snohomish County. From Washington Department of Game, June 14, 1955.



King Lake, Snohomish County. August 9, 1972. Approx. scale 1:4500.

LOMA LAKE

SNOHOMISH COUNTY

LATITUDE 48° 8' 3" LONGITUDE 122°15'15" T31N-R4E-35
 PUGET SOUND BASIN

PHYSICAL DATA

DRAINAGE AREA	0.15 SQ MI
ALTITUDE	565. FT
LAKE AREA	21. ACRES
LAKE VOLUME	230. ACRE-FT
MEAN DEPTH	11. FT
MAXIMUM DEPTH	28. FT
SHORELINE LENGTH	0.93 MI
SHORELINE CONFIGURATION	1.4
DEVELOPMENT OF VOLUME	0.39
BOTTOM SLOPE	2.3 %
BASIN GEOLOGY	SED./META.
INFLOW	NONE VISIBLE
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	96 %
NUMBER OF NEARSHORE HOMES	53
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	17 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	61 %
LAKE SURFACE	22 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

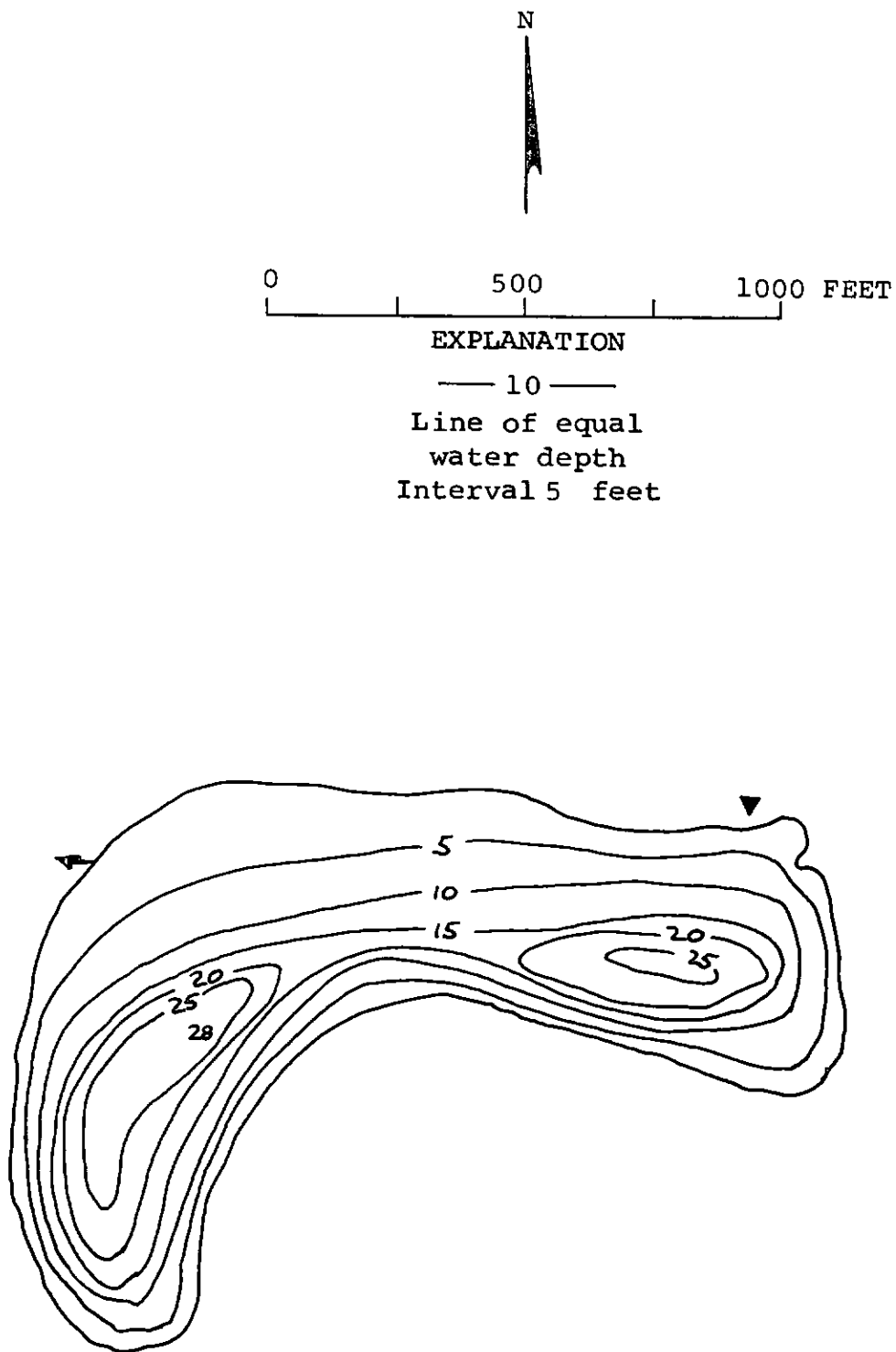
SAMPLE SITE	1
DATE	6/27/73
TIME	1010 1015
DEPTH (FT)	3. 23.
TOTAL NITRATE (N)	0.00 0.13
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.21 0.44
TOTAL ORGANIC NITROGEN (N)	0.09 0.04
TOTAL PHOSPHORUS (P)	0.030 0.032
DISSOLVED ORTHOPHOSPHATE (P)	0.004 0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	34 37
WATER TEMPERATURE (DEG C)	19.0 8.0
COLOR (PLATINUM-COBALT UNITS)	150 150
SECCHI-DISC VISIBILITY (FT)	4
DISSOLVED OXYGEN	9.1 0.9

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

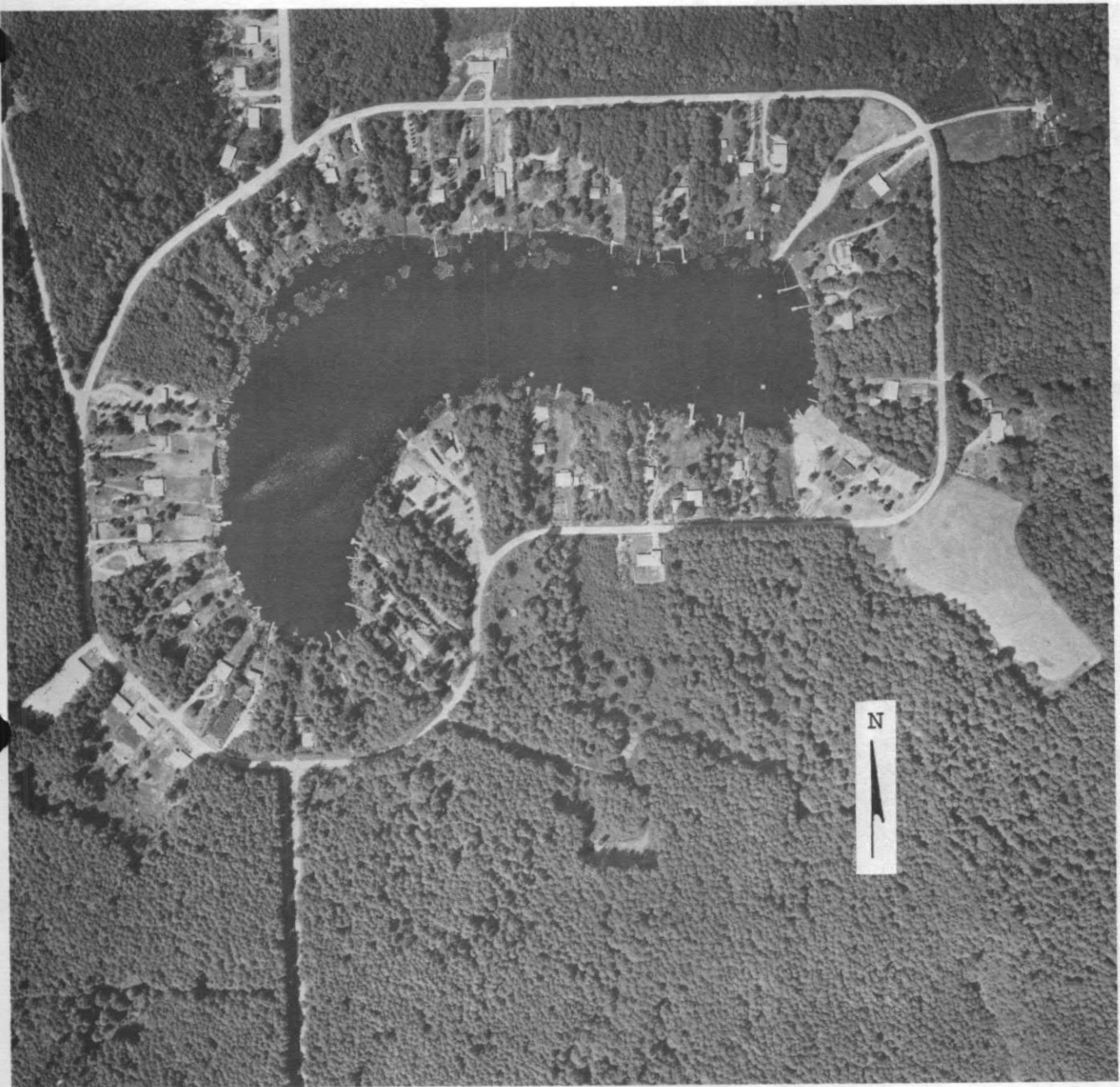
DATE	6/27/73
TIME	1015
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	26
FECAL COLIFORM, MAXIMUM (COL./100ML)	36
FECAL COLIFORM, MEAN (COL./100ML)	30

REMARKS

EMERSED AQUATIC PLANTS COVERED THE SHORELINE IN DENSE PATCHES. SUBMERSED AQUATIC PLANTS (COONTAIL) COVERED ABOUT 30 PERCENT OF THE LAKE BOTTOM. THE PLANTS ARE SUPPORTED ON A MUCK LITTORAL BOTTOM. IN 1973 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 16, 1973.



Loma Lake, Snohomish County. From Washington Department of Game, July 10, 1952.



Loma Lake, Snohomish County. July 30, 1973. Approx. scale 1:4800.

MARTHA (27N-4E-1) LAKE

SNOHOMISH COUNTY

LATITUDE 47°51' 2" LONGITUDE 121°14'37" T27N-R4E-1
SAMMAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.80 SQ MI
ALTITUDE 455. FT
LAKE AREA 57. ACRES
LAKE VOLUME 1300. ACRE-FT
MEAN DEPTH 24. FT
MAXIMUM DEPTH 48. FT
SHORELINE LENGTH 1.4 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.49
BOTTOM SLOPE 2.7 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 87 %
NUMBER OF NEARSHORE HOMES 85
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 9 %
RESIDENTIAL SUBURBAN 16 %
AGRICULTURAL 40 %
FOREST OR UNPRODUCTIVE 24 %
LAKE SURFACE 11 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

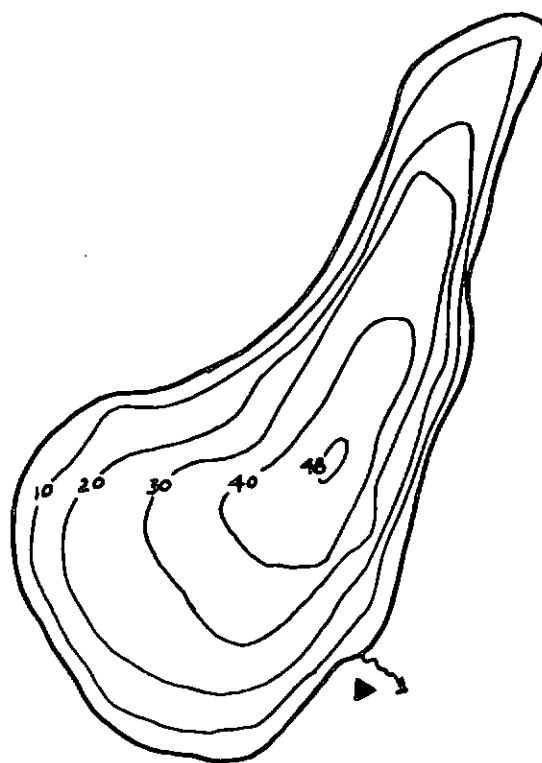
SAMPLE SITE 1
DATE 7/25/73
TIME 1240 1250
DEPTH (FT) 3. 36.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.09 0.70
TOTAL ORGANIC NITROGEN (N) 0.27 0.70
TOTAL PHOSPHORUS (P) 0.003 0.009
TOTAL ORTHOPHOSPHATE (P) 0.010 0.024
SPECIFIC CONDUCTANCE (MICROMHOS) 85 92
WATER TEMPERATURE (DEG C) 21.0 9.1
COLOR (PLATINUM-COBALT UNITS) 0 25
SECCHI-DISC VISIBILITY (FT) 13
DISSOLVED OXYGEN 9.1 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/25/73
TIME 1300
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) 56
FECAL COLIFORM, MEAN (COL./100ML) 43

REMARKS

AN URBAN LAKE NORTH OF SEATTLE. PARK FACILITIES ARE LOCATED NEAR THE BOAT ACCESS AND THE LAKE RECEIVES HEAVY RECREATIONAL USE DURING THE SUMMER. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



0 1000 2000 FEET

EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Martha (27N-4E-1) Lake, Snohomish County.
From Washington Department of Game, January 2, 1948.



Martha (27N-4E-1) Lake, Snohomish County. June 6, 1970. Approx. scale 1:12,000.

LATITUDE 48°10' 3" LONGITUDE 122°20'46" T31N-R4E-18
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.63 SQ MI
 ALTITUDE 186. FT
 LAKE AREA 62. ACRES
 LAKE VOLUME 2000. ACRE-FT
 MEAN DEPTH 33. FT
 MAXIMUM DEPTH 70. FT
 SHORELINE LENGTH 1.8 MI
 SHORELINE CONFIGURATION 1.6
 DEVELOPMENT OF VOLUME 0.47
 BOTTOM SLOPE 3.8 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 77 %
 NUMBER OF NEARSHORE HOMES 44
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 5 %
 AGRICULTURAL 13 %
 FOREST OR UNPRODUCTIVE 73 %
 LAKE SURFACE 9 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

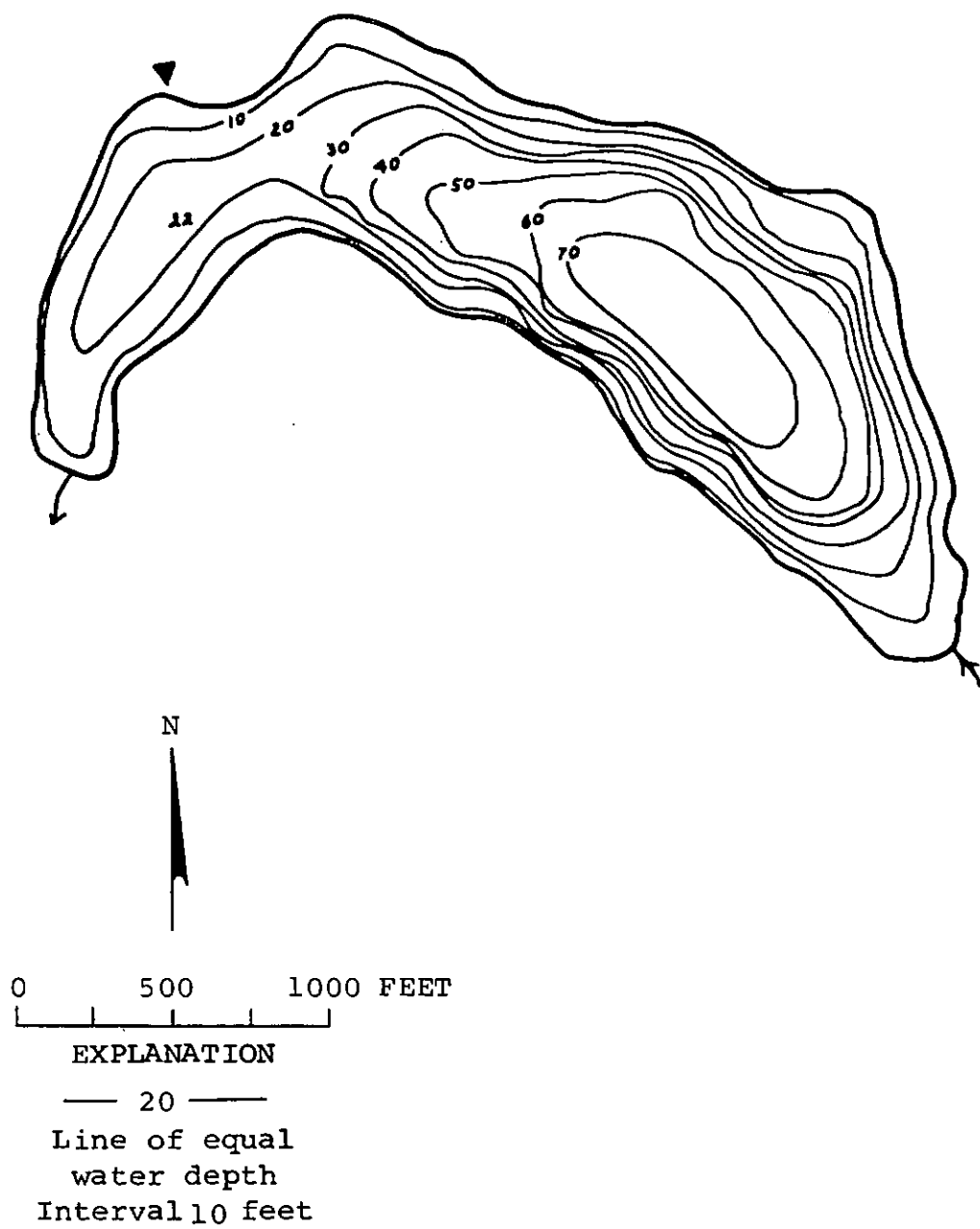
 SAMPLE SITE 1
 DATE 6/20/74
 TIME 1150 1200
 DEPTH (FT) 3. 62.
 TOTAL NITRATE (N) 0.15 0.47
 TOTAL NITRITE (N) 0.01 0.00
 TOTAL AMMONIA (N) 0.07 0.05
 TOTAL ORGANIC NITROGEN (N) 0.35 0.32
 TOTAL PHOSPHORUS (P) 0.017 0.029
 DISSOLVED ORTHOPHOSPHATE (P) 0.002 0.013
 SPECIFIC CONDUCTANCE (MICROMHOS) 74 65
 WATER TEMPERATURE (DEG C) 21.5 5.5
 COLOR (PLATINUM-COBALT UNITS) 35 35
 SECCHI-DISC VISIBILITY (FT) 9
 DISSOLVED OXYGEN 9.2 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 6/20/74
 TIME 1230
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 9
 FECAL COLIFORM, MEAN (COL./100ML) 4

REMARKS

 THE LAKE IS FED BY HOWARD LAKE AND TWO SMALL UNNAMED TRIBUTARIES. WARM BEACH WATER COMPANY DRAWS WATER DIRECTLY FROM THE LAKE. THE LITTORAL BOTTOM IS GRAVEL AND SAND AND SUPPORTED ONLY A LIGHT GROWTH OF PLANTS. IN 1974 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE ON AUGUST 2, 1974.



Martha (31N-4E-18) Lake, Snohomish County. June 2, 1970. Approx. scale 1:12,000.



Martha (31N-4E-18) Lake, Snohomish County.
From Washington Department of Game, January 31, 1948.

MENZEL LAKE

SNOHOMISH COUNTY

LATITUDE 48° 2' 10" LONGITUDE 121° 55' 5" T29N-R7E-4
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 2.97 SQ MI
ALTITUDE 475. FT
LAKE AREA 18. ACRES
LAKE VOLUME 260. ACRE-FT
MEAN DEPTH 15. FT
MAXIMUM DEPTH 24. FT
SHORELINE LENGTH 0.88 MI
SHORELINE CONFIGURATION 1.5
DEVELOPMENT OF VOLUME 0.61
BOTTOM SLOPE 2.4 %
BASIN GEOLOGY SED./META.
INFLOW PERENNIAL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 6 %
FOREST OR UNPRODUCTIVE 93 %
LAKE SURFACE 1 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

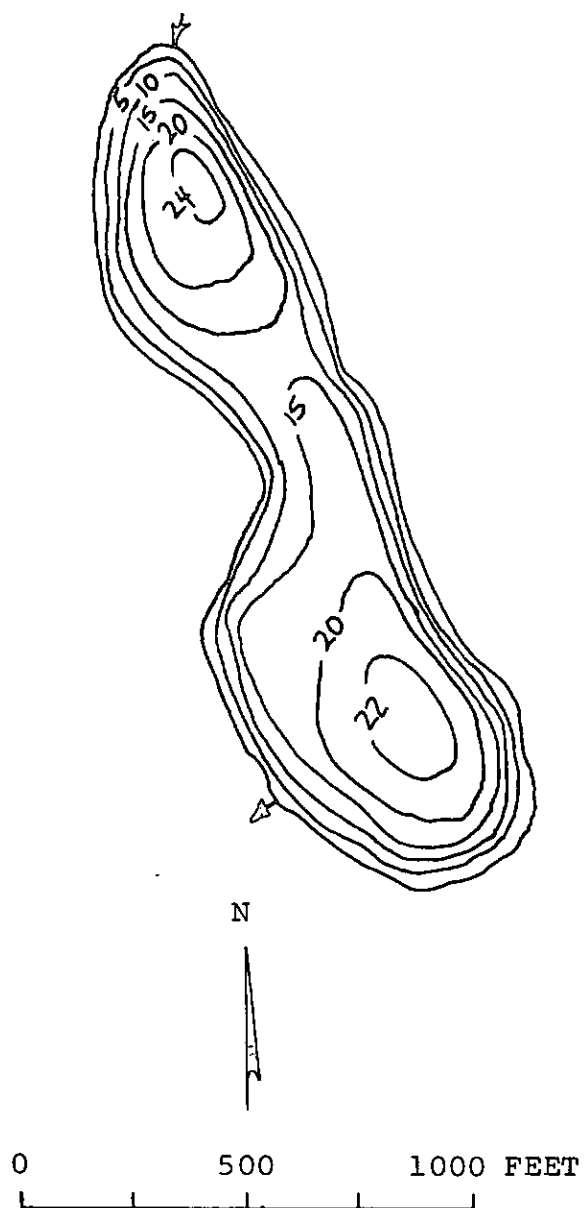
SAMPLE SITE 1
DATE 8/ 2/73
TIME 1500 1505
DEPTH (FT) 3. 15.
TOTAL NITRATE (N) 0.01 0.02
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.06 0.21
TOTAL ORGANIC NITROGEN (N) 0.18 0.28
TOTAL PHOSPHORUS (P) 0.016 0.062
TOTAL ORTHOPHOSPHATE (P) 0.002 0.006
SPECIFIC CONDUCTANCE (MICROMHOS) 102 106
WATER TEMPERATURE (DEG C) 23.0 11.3
COLOR (PLATINUM-COBALT UNITS) 30 30
SECCHI-DISC VISIBILITY (FT) 10
DISSOLVED OXYGEN 9.7 0.5

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/ 2/73
TIME 1500
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

PASTURE AND HAYFIELDS ARE LOCATED NORTH OF THE LAKE NEAR THE INFLOW. A THIN PATCHY BAND OF EMERSED PLANTS COVERED THE SHORELINE. A LOW-DENSITY ALGAL BLOOM WAS OBSERVED.



EXPLANATION
— 10 —
Line of equal
water depth
Interval 5 feet

Menzel Lake, Snohomish County. From Washington
Department of Game, January 26, 1949.



Menzel Lake, Snohomish County. August 2, 1973. Approx. scale 1:4800.

NORTH LAKE

SNOHOMISH COUNTY

LATITUDE 48° 8'11" LONGITUDE 121°31' 1" T31N-R10E-33
SKAGIT RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.30 SQ MI
ALTITUDE 4120. FT
LAKE AREA 31. ACRES
LAKE VOLUME 3800. ACRE-FT
MEAN DEPTH 120. FT
MAXIMUM DEPTH 260. FT
SHORELINE LENGTH 0.84 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.47
BOTTOM SLOPE 20. %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 84 %
LAKE SURFACE 16 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

1
DATE 8/14/73
TIME 1800 1810
DEPTH (FT) 3. 180.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.01 0.93
TOTAL ORGANIC NITROGEN (N) 0.10 0.07
TOTAL PHOSPHORUS (P) 0.002 0.046
TOTAL ORTHOPHOSPHATE (P) 0.001 0.061
SPECIFIC CONDUCTANCE (MICROMHOS) 28 129
WATER TEMPERATURE (DEG C) 18.0 3.5
COLOR (PLATINUM-COBALT UNITS) 5 15
SECCHI-DISC VISIBILITY (FT) 42
DISSOLVED OXYGEN 7.9 0.4

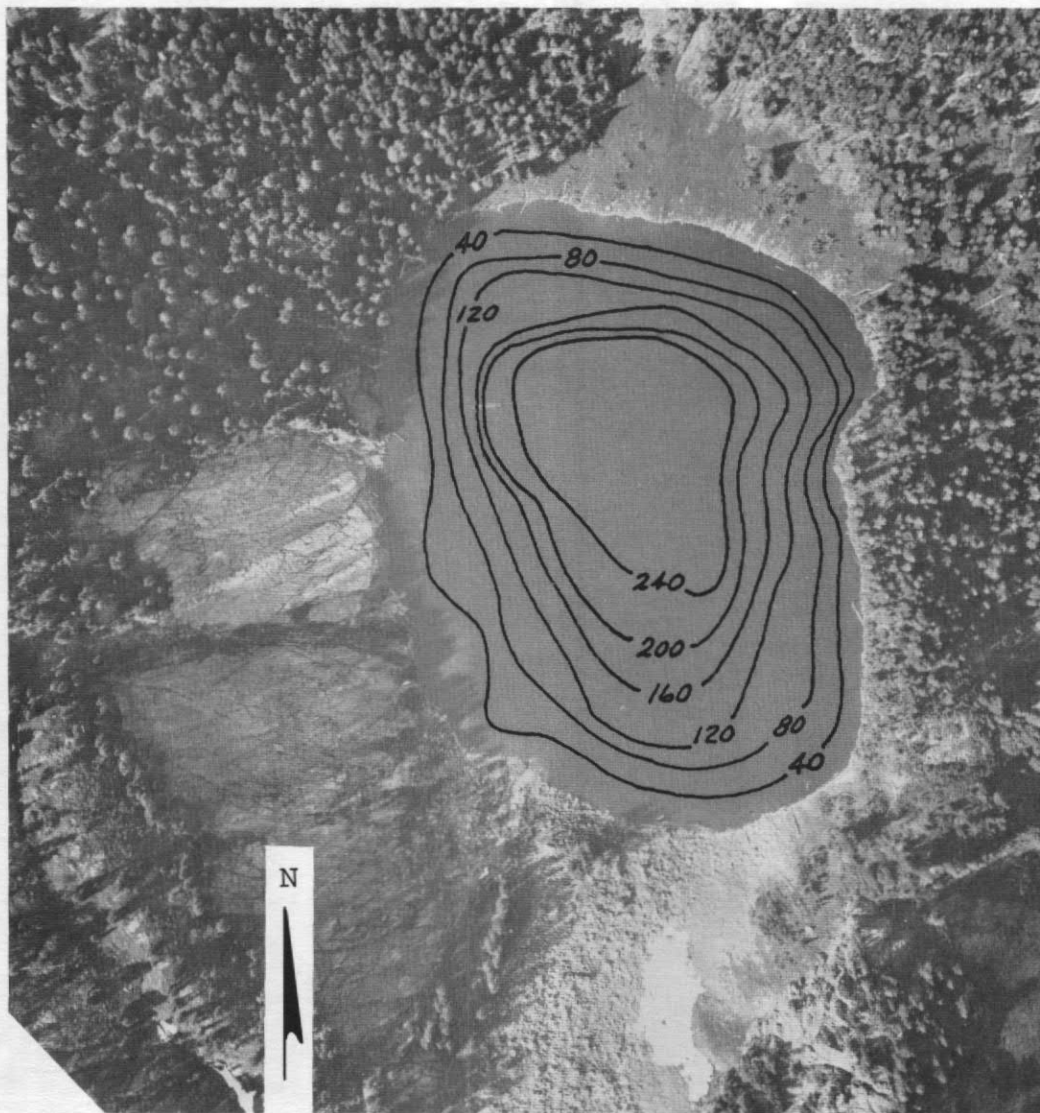
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE 8/14/73
TIME 1810
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

A DEEP LAKE SHELTERED BY THE SURROUNDING STEEP MOUNTAINS. DISSOLVED OXYGEN WAS DEPLETED BELOW 100 FEET IN WATER DEPTH.



EXPLANATION

— 80 —

Line of equal
water depth
Interval 40 feet

North Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 17, 1973.
Aerial photo, August 2, 1973.

PANTHER LAKE

SNOHOMISH COUNTY

LATITUDE 47°56'44" LONGITUDE 122° 0'22" T28N-R6E-2
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.82 SQ MI
ALTITUDE 455. FT
LAKE AREA 48. ACRES
LAKE VOLUME 1100. ACRE-FT
MEAN DEPTH 23. FT
MAXIMUM DEPTH 36. FT
SHORELINE LENGTH 1.3 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.64
BOTTOM SLOPE 2.2 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 73 %
NUMBER OF NEARSHORE HOMES 25
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 2 %
AGRICULTURAL 24 %
FOREST OR UNPRODUCTIVE 65 %
LAKE SURFACE 9 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

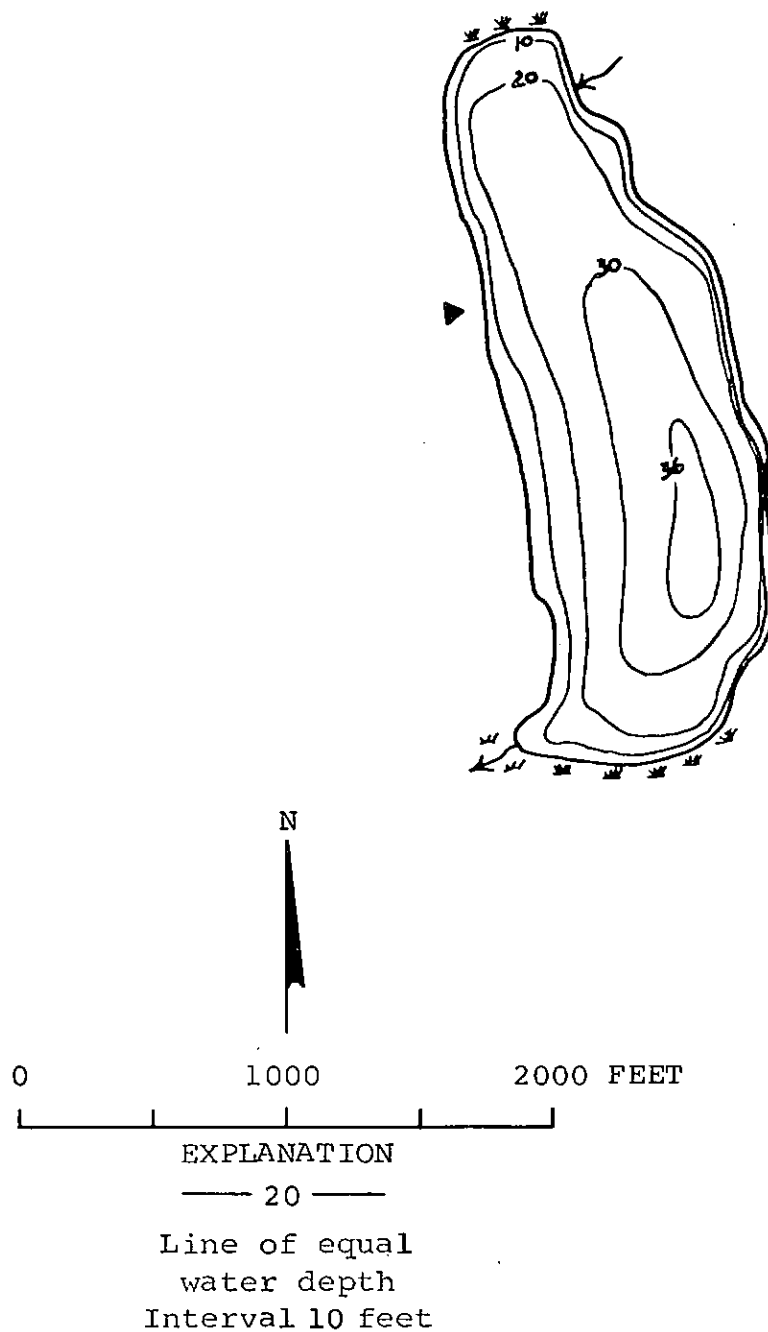
1
DATE 8/ 3/73
TIME 1455 1500
DEPTH (FT) 3. 30.
TOTAL NITRATE (N) 0.01 0.10
TOTAL NITRITE (N) 0.00 0.01
TOTAL AMMONIA (N) 0.09 0.50
TOTAL ORGANIC NITROGEN (N) 0.30 0.05
TOTAL PHOSPHORUS (P) 0.013 0.051
TOTAL ORTHOPHOSPHATE (P) 0.007 0.030
SPECIFIC CONDUCTANCE (MICROMHOS) 42 49
WATER TEMPERATURE (DEG C) 24.5 6.7
COLOR (PLATINUM-COBALT UNITS) 35 150
SECCHI-DISC VISIBILITY (FT) 7
DISSOLVED OXYGEN 9.0 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/ 3/73
TIME 1505
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 5
FECAL COLIFORM, MAXIMUM (COL./100ML) 21
FECAL COLIFORM, MEAN (COL./100ML) 13

REMARKS

SUBMERGED LOGS, BARK, AND WOOD CHIPS COVERED THE LAKE BOTTOM. THE LAKE REPORTEDLY HAS BEEN USED AS A LOG STORAGE POND. THE WATER IS A BROWN TEA COLOR WHICH IS PROBABLY DUE IN PART TO THE WOOD DEBRIS. THE BOTTOM WATER IS ESPECIALLY HIGH IN COLOR. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. A LOW-DENSITY ALGAL BLOOM WAS OBSERVED.



Panther Lake, Snohomish County. From Washington
Department of Game, January 24, 1949.



Panther Lake, Snohomish County. May 13, 1973. Approx. scale 1:4800.

PEACH LAKE

SNOHOMISH COUNTY

LATITUDE 47°52'20" LONGITUDE 121°10'10" T28N-R13E-32
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.13 SQ MI
ALTITUDE 4807. FT
LAKE AREA 15. ACRES
LAKE VOLUME 490. ACRE-FT
MEAN DEPTH 32. FT
MAXIMUM DEPTH 73. FT
SHORELINE LENGTH 0.75 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.44
BOTTOM SLOPE 7.9 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 82 %
LAKE SURFACE 18 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

DATE 1
TIME 7/31/73
DEPTH (FT) 1410 1415
TOTAL NITRATE (N) 3. 59.
TOTAL NITRITE (N) 0.02 0.01
TOTAL AMMONIA (N) 0.00 0.00
TOTAL ORGANIC NITROGEN (N) 0.03 0.05
TOTAL PHOSPHORUS (P) 0.04 0.02
TOTAL ORTHOPHOSPHATE (P) 0.002 0.019
SPECIFIC CONDUCTANCE (MICROMHOS) 0.001 0.002
WATER TEMPERATURE (DEG C) 8 11
COLOR (PLATINUM-COBALT UNITS) 16.8 6.0
SECCHI-DISC VISIBILITY (FT) 0 0
DISSOLVED OXYGEN 56
7.9 8.0

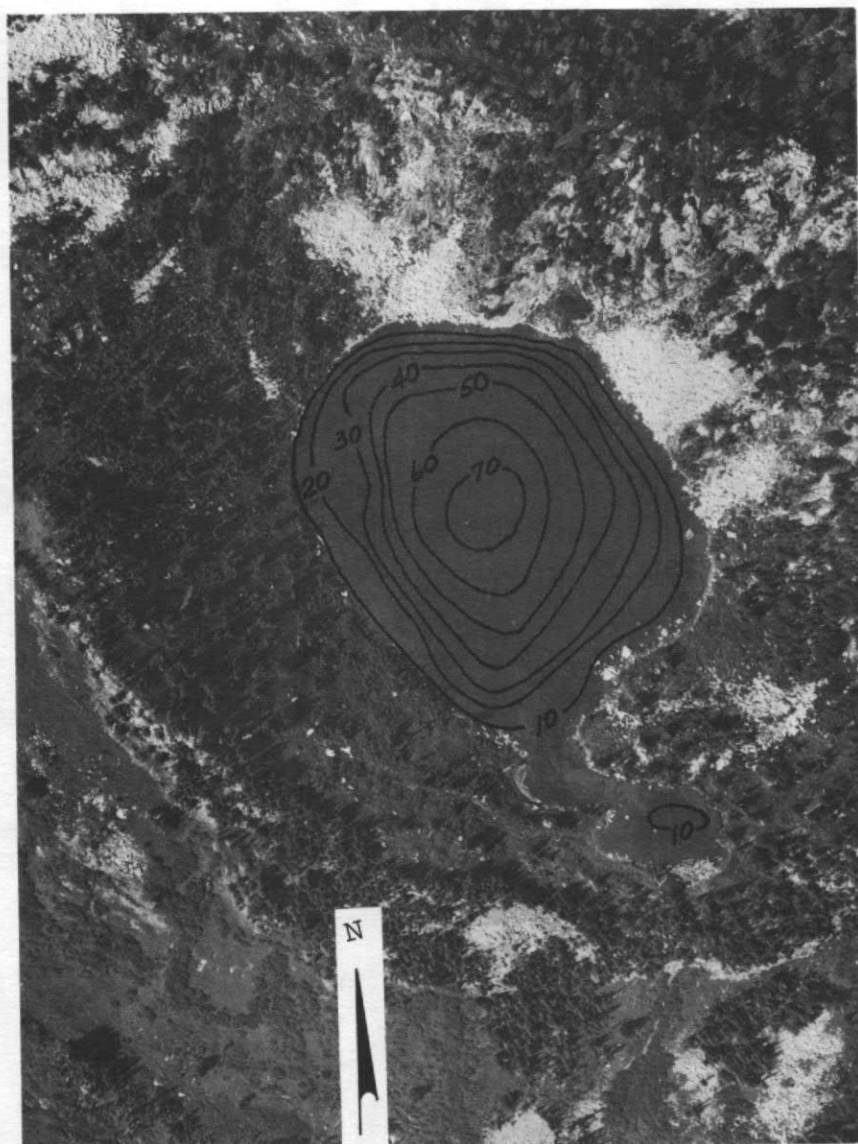
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE
TIME 7/31/73
NUMBER OF FECAL COLIFORM SAMPLES 1415
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE WATER CLARITY IS HIGH AS INDICATED BY THE SECCHI-DISC READING OF 56 FEET. THE BOTTOM OF THE LAKE IS COVERED BY MOSS. NO AQUATIC MACROPHYTES WERE OBSERVED.



0 500 1000 FEET

EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Peach Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 8, 1973.
Aerial photo, August 3, 1973.

PEAR LAKE

SNOHOMISH COUNTY

LATITUDE 47°52'41" LONGITUDE 121°10' 0" T28N-R13E-32
SNOHOMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

DRAINAGE AREA 0.30 SQ MI
ALTITUDE 4809. FT
LAKE AREA 27. ACRES
LAKE VOLUME 980. ACRE-FT
MEAN DEPTH 37. FT
MAXIMUM DEPTH 77. FT
SHORELINE LENGTH 0.90 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.48
BOTTOM SLOPE 6.3 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL ABSENT

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 86 %
LAKE SURFACE 14 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/31/73
TIME 1255 1305
DEPTH (FT) 3. 59.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.05 0.03
TOTAL ORGANIC NITROGEN (N) 0.00 0.02
TOTAL PHOSPHORUS (P) 0.007 0.005
TOTAL ORTHOPHOSPHATE (P) 0.001 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 8 8
WATER TEMPERATURE (DEG C) 16.0 5.0
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 44
DISSOLVED OXYGEN 8.2 9.5

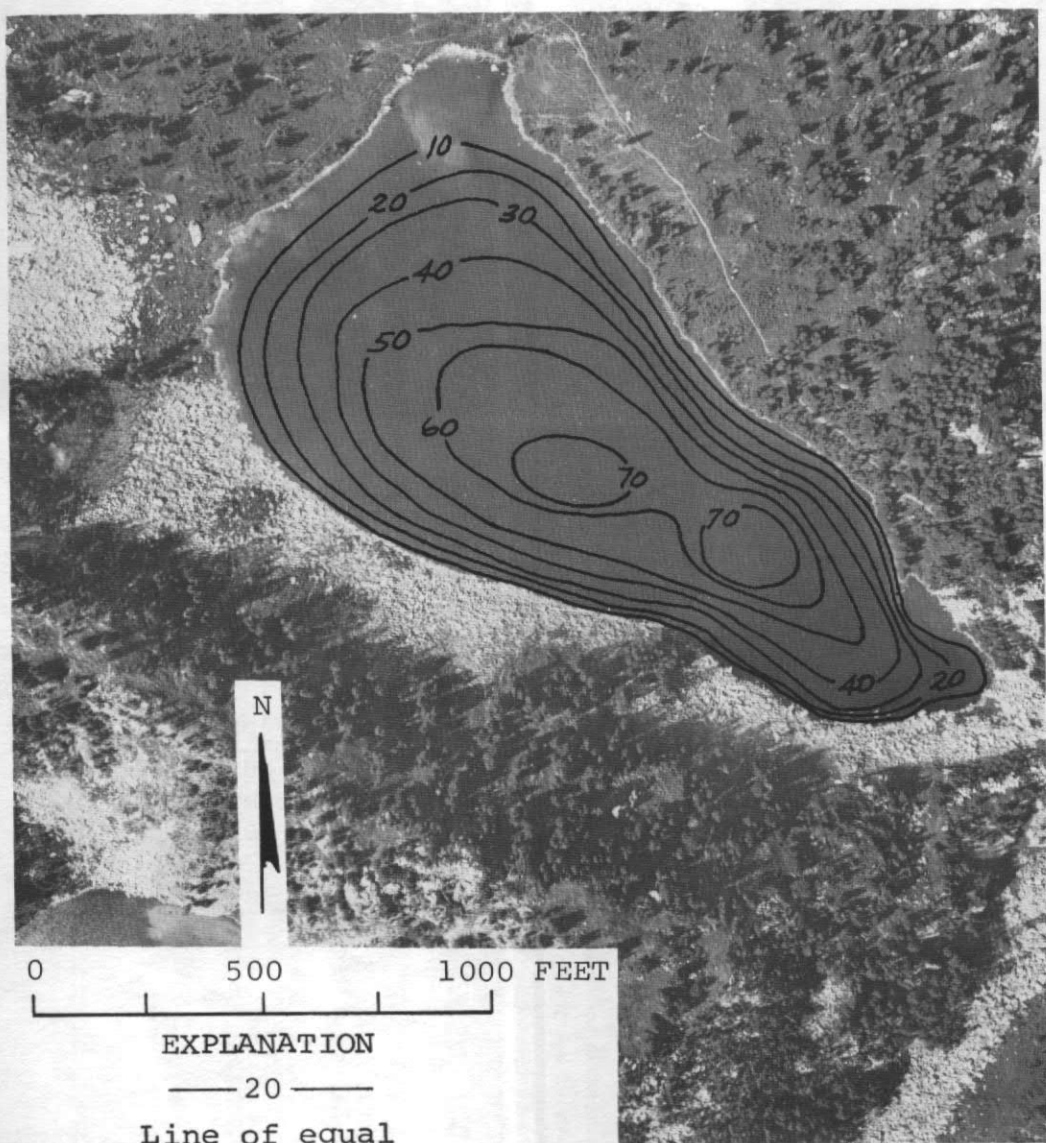
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE 8/14/73
TIME 2000
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE WATER CLARITY WAS HIGH AS INDICATED BY A SECCHI-DISC READING OF 52 FEET. THE OUTFLOW IS BY UNDERGROUND SEEPAGE. NO AQUATIC MACROPHYTES WERE OBSERVED.



Pear Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 6, 1973.
Aerial photo, August 3, 1973.

PEEK-A-BOO LAKE

SNOHOMISH COUNTY

LATITUDE 48° 8'15" LONGITUDE 121°28'20" T31N-R10E-35
SNOHOMISH RIVER BASIN

PHYSICAL DATA

CULTURAL DATA

DRAINAGE AREA	0.25 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	3902. FT	NUMBER OF NEARSHORE HOMES	0
LAKE AREA	18. ACRES	LAND USE IN DRAINAGE BASIN	
LAKE VOLUME	1100. ACRE-FT	RESIDENTIAL URBAN	0 %
MEAN DEPTH	61. FT	RESIDENTIAL SUBURBAN	0 %
MAXIMUM DEPTH	140. FT	AGRICULTURAL	0 %
SHORELINE LENGTH	0.66 MI	FOREST OR UNPRODUCTIVE	89 %
SHORELINE CONFIGURATION	1.1	LAKE SURFACE	11 %
DEVELOPMENT OF VOLUME	0.44		
BOTTOM SLOPE	14. %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1
DATE	8/14/73
TIME	1900 1910
DEPTH (FT)	3. 118.
TOTAL NITRATE (N)	0.01 0.02
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.04 0.97
TOTAL ORGANIC NITROGEN (N)	0.06 0.03
TOTAL PHOSPHORUS (P)	0.002 0.026
TOTAL ORTHOPHOSPHATE (P)	0.000 0.003
SPECIFIC CONDUCTANCE (MICROMHOS)	30 120
WATER TEMPERATURE (DEG C)	19.0 4.0
COLOP (PLATINUM-COBALT UNITS)	5 30
SECCHI-DISC VISIRILITY (FT)	49
DISSOLVED OXYGEN	7.8 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	7/31/73
TIME	1305
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM. MINIMUM (COL./100ML)	<1
FECAL COLIFORM. MAXIMUM (COL./100ML)	<1
FECAL COLIFORM. MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS SURROUNDED BY A HEAVILY-TIMBERED FOREST AND FORMS THE HEADWATERS OF PEEK-A-BOO CREEK. LOGS LITTERED THE SHORELINE. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION.



Peek-a-boo Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 16, 1973.
Aerial photo, August 2, 1973.

RILEY LAKE

SNOHOMISH COUNTY

LATITUDE 48°14'40" LONGITUDE 121°56'33" T32N-R7E-20
 STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.44 SQ MI
 ALTITUDE 517. FT
 LAKE AREA 30. ACRES
 LAKE VOLUME 670. ACRE-FT
 MEAN DEPTH 22. FT
 MAXIMUM DEPTH 45. FT
 SHORELINE LENGTH 0.95 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.49
 BOTTOM SLOPE 3.5 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL ABSENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 41 %
 NUMBER OF NEARSHORE HOMES 19
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 5 %
 AGRICULTURAL 14 %
 FOREST OR UNPRODUCTIVE 70 %
 LAKE SURFACE 11 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

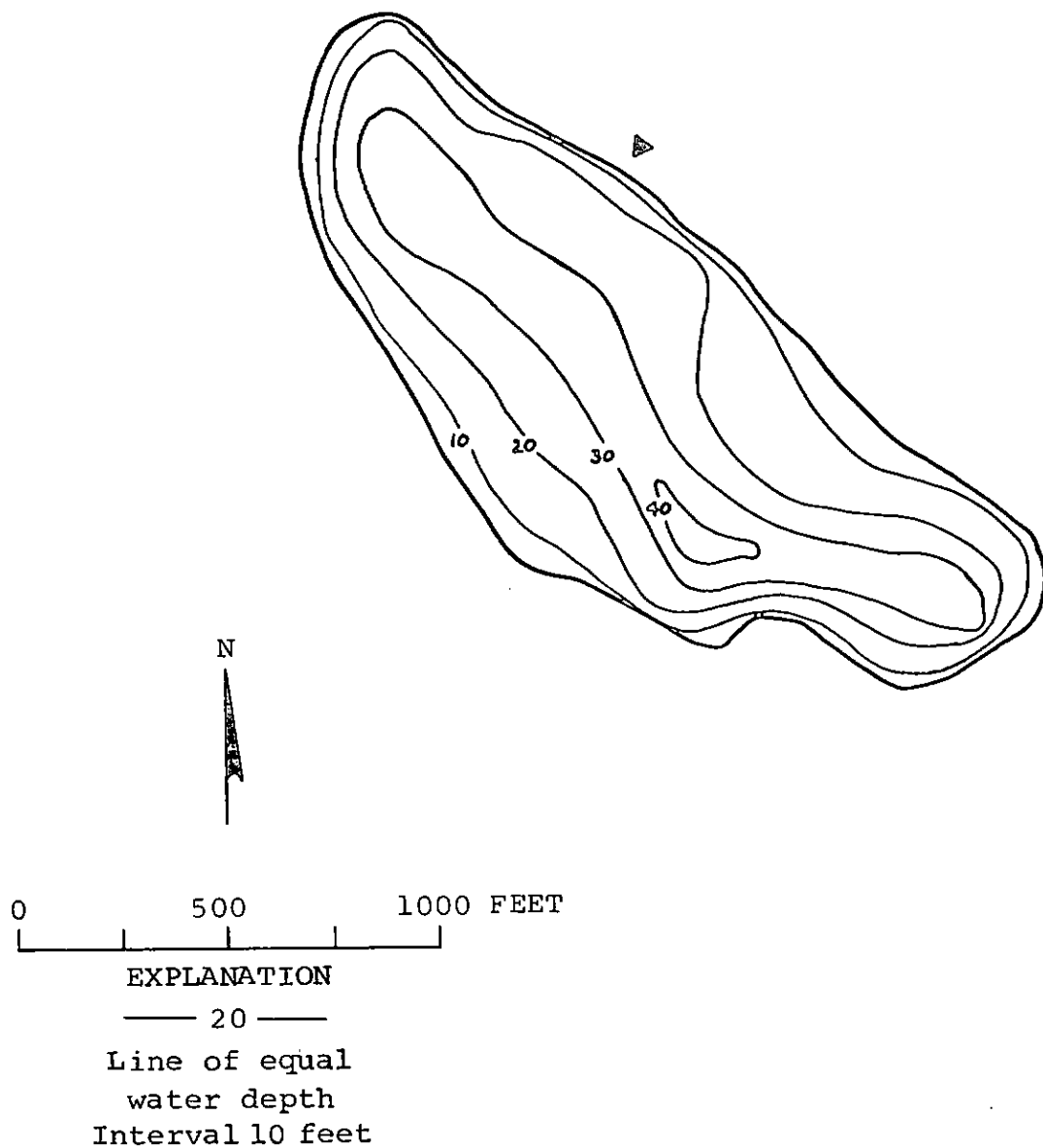
 SAMPLE SITE 1
 DATE 8/18/73
 TIME 1540 1545
 DEPTH (FT) 3. 30.
 TOTAL NITRATE (N) 0.08 0.05
 TOTAL NITRITE (N) 0.00 0.01
 TOTAL AMMONIA (N) 0.10 0.37
 TOTAL ORGANIC NITROGEN (N) 0.23 0.33
 TOTAL PHOSPHORUS (P) 0.006 0.014
 TOTAL ORTHOPHOSPHATE (P) 0.017 0.071
 SPECIFIC CONDUCTANCE (MICROMHOS) 28 31
 WATER TEMPERATURE (DEG C) 20.2 5.8
 COLOR (PLATINUM-COBALT UNITS) 45 170
 SECCHI-DISC VISIBILITY (FT) 6
 DISSOLVED OXYGEN 8.4 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 8/18/73
 TIME 1545
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) <1
 FECAL COLIFORM, MAXIMUM (COL./100ML) 2
 FECAL COLIFORM, MEAN (COL./100ML) 1

REMARKS

 EMERSED PLANTS COVERED THE ENTIRE SHORELINE IN A NARROW BAND. THE WATER IS BROWN COLOR. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION.



Riley Lake, Snohomish County. From Washington
Department of Game, October 21, 1946.



Riley Lake, Snohomish County. July 15, 1973. Approx. scale 1:4800.

LATITUDE 47°59'17" LONGITUDE 121°55' 4" T29N-R7E-21
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	1.95 SQ MI
ALTITUDE	570. FT
LAKE AREA	200. ACRES
LAKE VOLUME	9600. ACRE-FT
MEAN DEPTH	48. FT
MAXIMUM DEPTH	110. FT
SHORELINE LENGTH	2.9 MI
SHORELINE CONFIGURATION	1.5
DEVELOPMENT OF VOLUME	0.43
BOTTOM SLOPE	3.3 %
BASIN GEOLOGY	SED./META.
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	100 %
NUMBER OF NEARSHORE HOMES	189
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	9 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	75 %
LAKE SURFACE	16 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

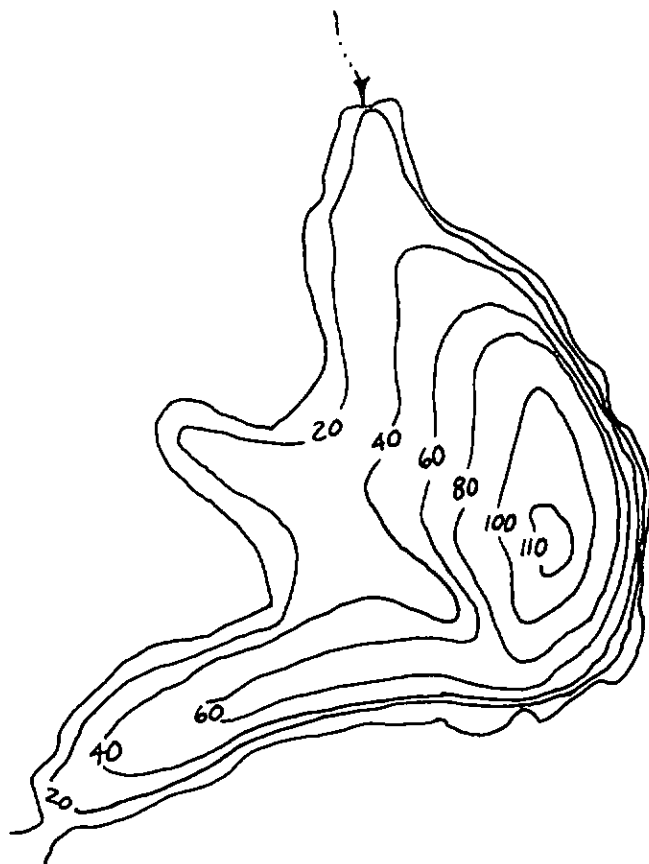
SAMPLE SITE	1	
DATE	7/25/72	
TIME	1415	1420
DEPTH (FT)	3.	95.
DISSOLVED NITRATE (N)	0.22	0.39
DISSOLVED NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.13	0.30
TOTAL ORGANIC NITROGEN (N)	0.38	0.38
TOTAL PHOSPHORUS (P)	0.029	0.033
DISSOLVED ORTHOPHOSPHATE (P)	0.002	0.001
SPECIFIC CONDUCTANCE (MICROMHOS)	28	32
WATER TEMPERATURE (DEG C)	22.0	5.0
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	10	
DISSOLVED OXYGEN	8.7	3.9

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	7/25/72
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	12
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE LAKE IS A DEEP CONICAL-SHAPED DEPRESSION SEPARATED FROM THE SOUTH ARM BY A NARROW CONNECTING CHANNEL. THE DISSOLVED OXYGEN WAS GREATER THAN 6.0 MG/LITRE FROM 85 FEET DEPTH TO THE WATER SURFACE. IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED THE NORTH ARM OF THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE OCTOBER 12, 1972.



N



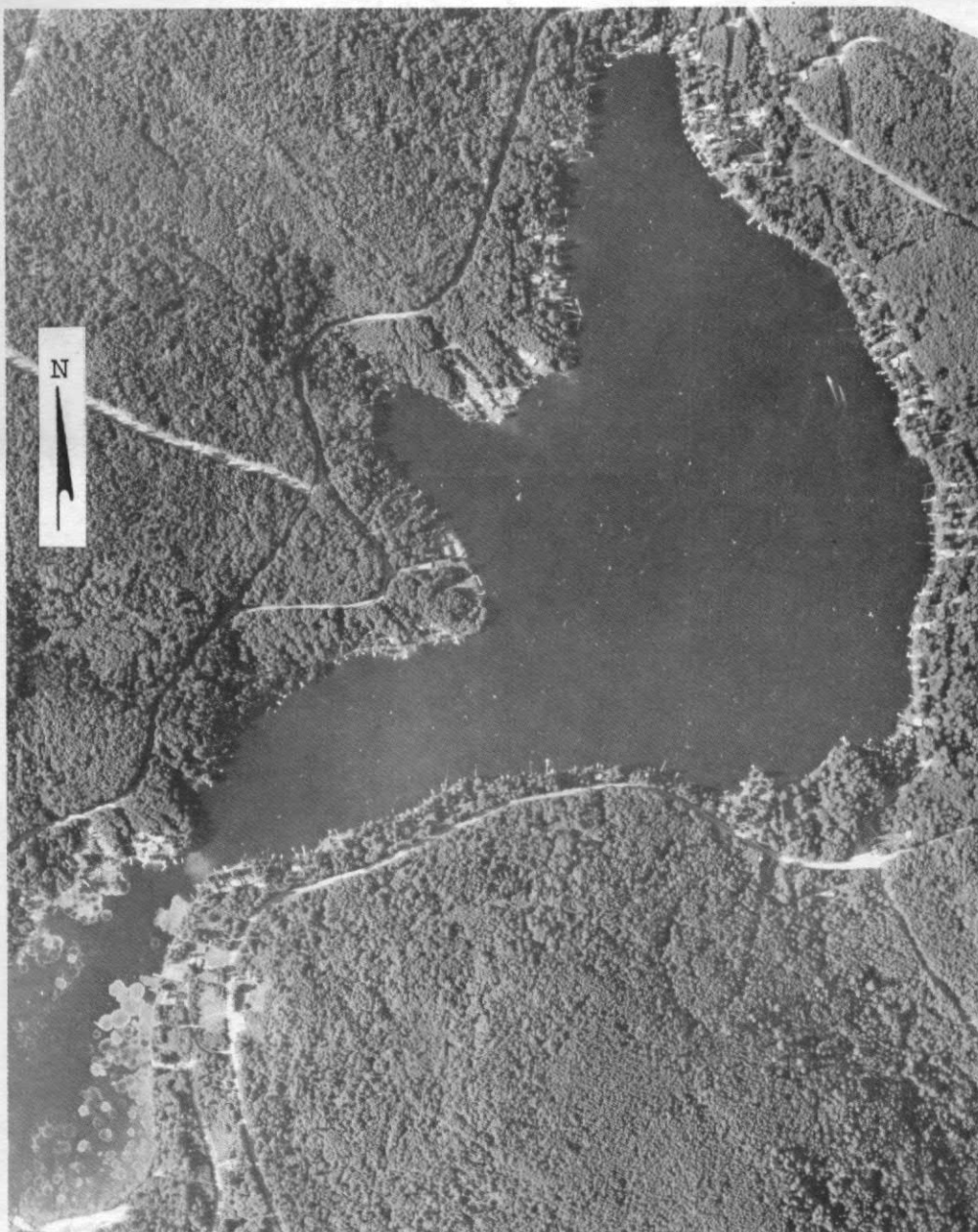
0 2000 4000 FEET

EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Roesiger (North Arm) Lake, Snohomish County.
From Washington Department of Game, February 5, 1952.



Roesiger (North Arm) Lake, Snohomish County.
August 9, 1972. Approx. scale 1:12,000.

ROESIGER (SOUTH ARM) LAKE

SNOHOMISH COUNTY

LATITUDE 47°58'19" LONGITUDE 121°55'23" T29N-R7E-28
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 3.55 SQ MI
ALTITUDE 570. FT
LAKE AREA 140. ACRES
LAKE VOLUME 3000. ACRE-FT
MEAN DEPTH 22. FT
MAXIMUM DEPTH 70. FT
SHORELINE LENGTH 3.0 MI
SHORELINE CONFIGURATION 1.8
DEVELOPMENT OF VOLUME 0.31
BOTTOM SLOPE 2.5 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 100 %
NUMBER OF NEARSHORE HOMES 155
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 6 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 79 %
LAKE SURFACE 15 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

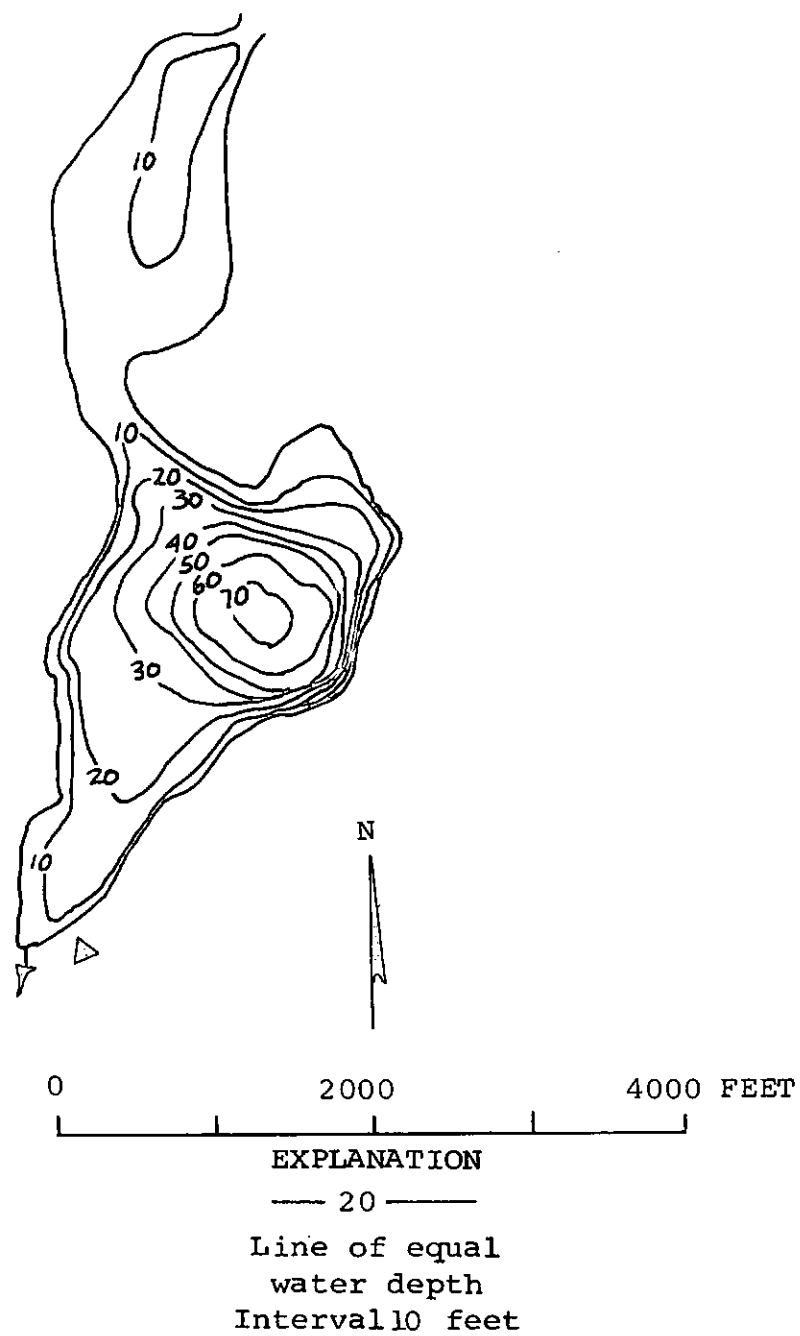
SAMPLE SITE 1
DATE 7/25/72
TIME 1140 1145
DEPTH (FT) 3. 66.
DISSOLVED NITRATE (N) 0.06 0.36
DISSOLVED NITRITE (N) 0.00 0.01
TOTAL AMMONIA (N) 0.27 0.47
TOTAL ORGANIC NITROGEN (N) 0.33 0.03
TOTAL PHOSPHORUS (P) 0.005 0.018
DISSOLVED ORTHOPHOSPHATE (P) 0.003 0.002
SPECIFIC CONDUCTANCE (MICROMHOS) 32 31
WATER TEMPERATURE (DEG C) 21.8 5.1
COLOR (PLATINUM-COBALT UNITS) 5 15
SECCHI-DISC VISIBILITY (FT) 10
DISSOLVED OXYGEN 9.0 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 7/25/72
TIME 1200
NUMBER OF FECAL COLIFORM SAMPLES 4
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) 8
FECAL COLIFORM, MEAN (COL./100ML) 3

REMARKS

THE SOUTH ARM OF ROESIGER LAKE IS SEPARATED FROM THE NORTH ARM BY A NARROW CONNECTING CHANNEL. A HEAVY COVER OF EMERSED AND SUBMERSED PLANTS WAS OBSERVED IN THE SHALLOW NORTH END OF THE LAKE. IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED THE SOUTH ARM OF THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE OCTOBER 12, 1972.



Roesiger (South Arm) Lake, Snohomish County.
From Washington Department of Game, February 5, 1952



Roesiger (South Arm) Lake, Snohomish County.
August 9, 1972. Approx. scale 1:12,000

SAUCER LAKE

SNOHOMISH COUNTY

LATITUDE 47°49'49" LONGITUDE 121° 8'52" T27N-R13E-16
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.38 SQ MI
ALTITUDE 4483. FT
LAKE AREA 14. ACRES
LAKE VOLUME 790. ACRE-FT
MEAN DEPTH 56. FT
MAXIMUM DEPTH 120. FT
SHORELINE LENGTH 0.56 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.47
BOTTOM SLOPE 13. %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 90 %
LAKE SURFACE 10 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/31/73
TIME 1520 1525
DEPTH (FT) 3. 66.
TOTAL NITRATE (N) 0.01 0.02
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.02 0.04
TOTAL ORGANIC NITROGEN (N) 0.05 0.08
TOTAL PHOSPHORUS (P) 0.002 0.009
DISSOLVED ORTHOPHOSPHATE (P) 0.001 0.006
SPECIFIC CONDUCTANCE (MICROMHOS) 14 21
WATER TEMPERATURE (DEG C) 16.9 4.7
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 56
DISSOLVED OXYGEN 8.2 2.6

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/31/73
TIME 1540
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE LAKE IS FED FROM CUP LAKE. NO AQUATIC MACROPHYTES WERE OBSERVED.
DISSOLVED OXYGEN WAS PARTIALLY DEPLETED (2.6 MG/LITRE) AT THE LOWER
SAMPLING DEPTH.



Saucer Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 5, 1973.
Aerial photo, August 3, 1973.

SERENE (27N-10E-31) LAKE

SNOHOMISH COUNTY

LATITUDE 47°47' 8" LONGITUDE 121°34'10" T27N-R10E-31'
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.71 SQ MI
ALTITUDE 2509. FT
LAKE AREA 49. ACRES
LAKE VOLUME 4000. ACRE-FT
MEAN DEPTH 82. FT
MAXIMUM DEPTH 200. FT
SHORELINE LENGTH 1.4 MI
SHORELINE CONFIGURATION 1.4
DEVELOPMENT OF VOLUME 0.41
BOTTOM SLOPE 12. %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 89 %
LAKE SURFACE 11 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 8/12/73
TIME 1645 1650
DEPTH (FT) 3. 190.
TOTAL NITRATE (N) 0.07 0.11
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.01 0.02
TOTAL ORGANIC NITROGEN (N) 0.05 0.05
TOTAL PHOSPHORUS (P) 0.000 0.001
TOTAL ORTHOPHOSPHATE (P) 0.000 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 7 16
WATER TEMPERATURE (DEG C) 14.0 3.1
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 92
DISSOLVED OXYGEN 8.9 6.8

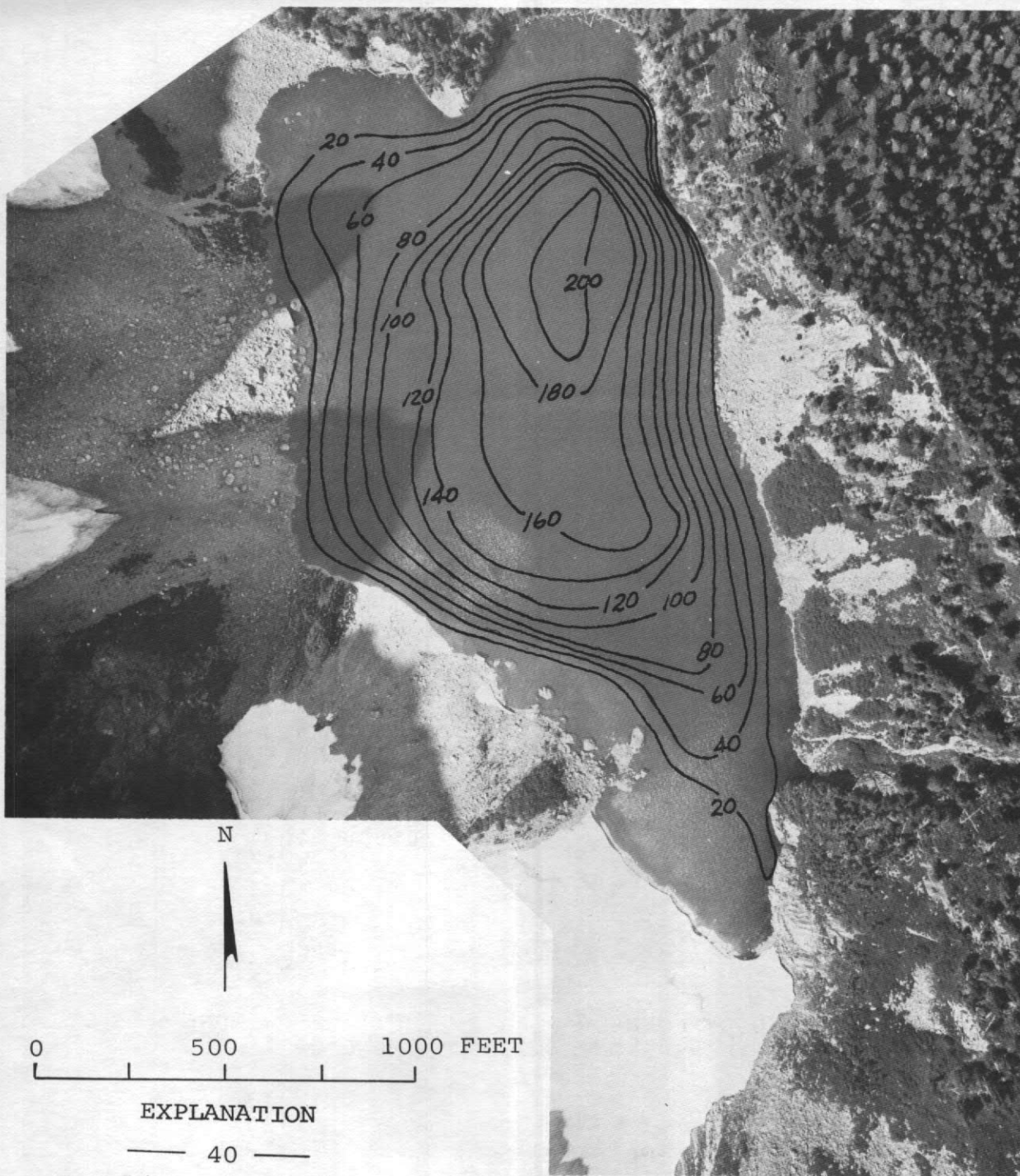
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE 8/12/73
TIME 1700
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

A DEEP CIRQUE LAKE SURROUNDED BY STEEP TALUS SLOPE. NO AQUATIC
MACROPHYTES WERE OBSERVED.



Serene (27N-10E-31) Lake, Snohomish County. Bathymetric map from
 U.S. Geological Survey, September 5, 1973.
 Aerial photo, August 3, 1973.

SERENE (28N-4E-34) LAKE

SNOHOMISH COUNTY

LATITUDE 47°52'18" LONGITUDE 122°17'20" T28N-R4E-34
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 0.46 SQ MI
 ALTITUDE 535. FT
 LAKE AREA 42. ACRES
 LAKE VOLUME 580. ACRE-FT
 MEAN DEPTH 14. FT
 MAXIMUM DEPTH 23. FT
 SHORELINE LENGTH 1.3 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.60
 BOTTOM SLOPE 1.5 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 94 %
 NUMBER OF NEARSHORE HOMES 93
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 6 %
 RESIDENTIAL SUBURBAN 50 %
 AGRICULTURAL 12 %
 FOREST OR UNPRODUCTIVE 18 %
 LAKE SURFACE 14 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE

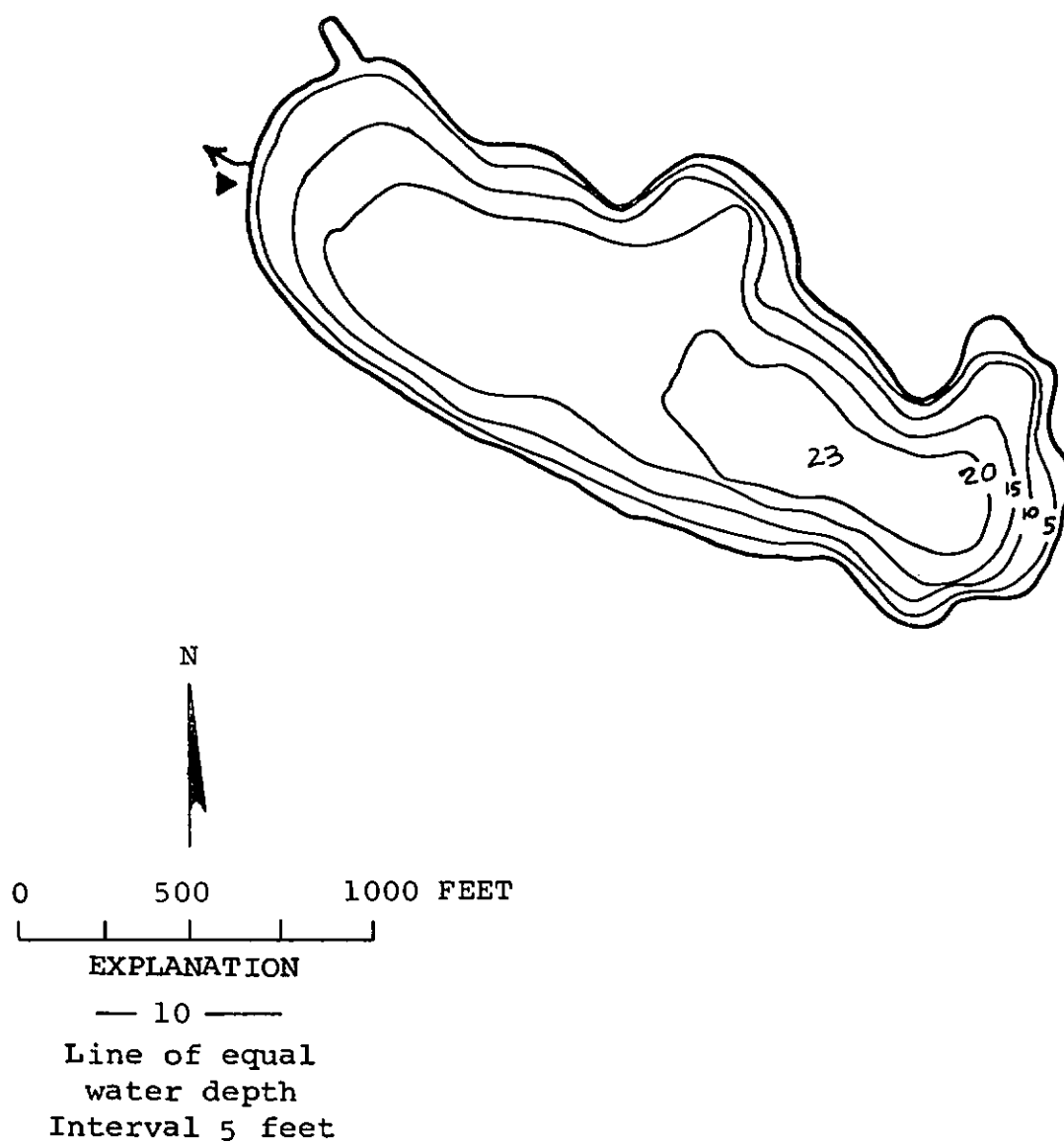
 DATE 7/25/73
 TIME 1510 1530
 DEPTH (FT) 3. 15.
 TOTAL NITRATE (N) 0.01 0.02
 TOTAL NITRITE (N) 0.00 0.01
 TOTAL AMMONIA (N) 0.12 0.23
 TOTAL ORGANIC NITROGEN (N) 0.27 0.33
 TOTAL PHOSPHORUS (P) 0.020 0.035
 TOTAL ORTHOPHOSPHATE (P) 0.006 0.021
 SPECIFIC CONDUCTANCE (MICROMHOS) 89 100
 WATER TEMPERATURE (DEG C) 21.8 18.2
 COLOR (PLATINUM-COBALT UNITS) 10 30
 SECCHI-DISC VISIBILITY (FT) 7
 DISSOLVED OXYGEN 8.4 0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/25/73
 TIME 1540
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) 11
 FECAL COLIFORM, MAXIMUM (COL./100ML) 21
 FECAL COLIFORM, MEAN (COL./100ML) 18

REMARKS

 AN URBAN LAKE LOCATED NORTH OF SEATTLE. A BAND OF EMERSED PLANTS COVERED MOST OF THE SHORELINE. A SLIGHT HYDROGEN SULFIDE ODOR WAS DETECTED IN THE HYPOLIMNION. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



Serene (28N-4E-34) Lake, Snohomish County.
From Washington Department of Game, January 21, 1948.



Serene (28N-4E-34) Lake, Snohomish County.
May 13, 1973. Approx. scale 1:4800.

SHOECRAFT LAKE

SNOHOMISH COUNTY

LATITUDE 48° 7'34" LONGITUDE 122°18'20" T31N-R4E-33
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 6.02 SQ MI
 ALTITUDE 324. FT
 LAKE AREA 130. ACRES
 LAKE VOLUME 2400. ACRE-FT
 MEAN DEPTH 18. FT
 MAXIMUM DEPTH 35. FT
 SHORELINE LENGTH 2.4 MI
 SHORELINE CONFIGURATION 1.5
 DEVELOPMENT OF VOLUME 0.51
 BOTTOM SLOPE 1.3 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 100 %
 NUMBER OF NEARSHORE HOMES 100
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 7 %
 AGRICULTURAL 3 %
 FOREST OR UNPRODUCTIVE 72 %
 LAKE SURFACE 18 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

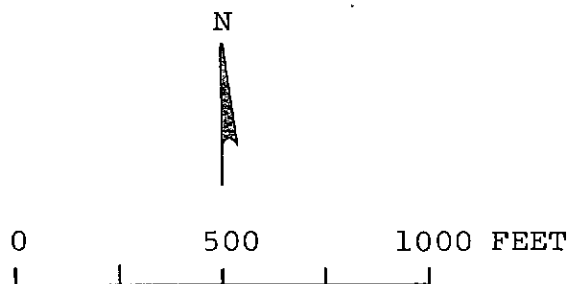
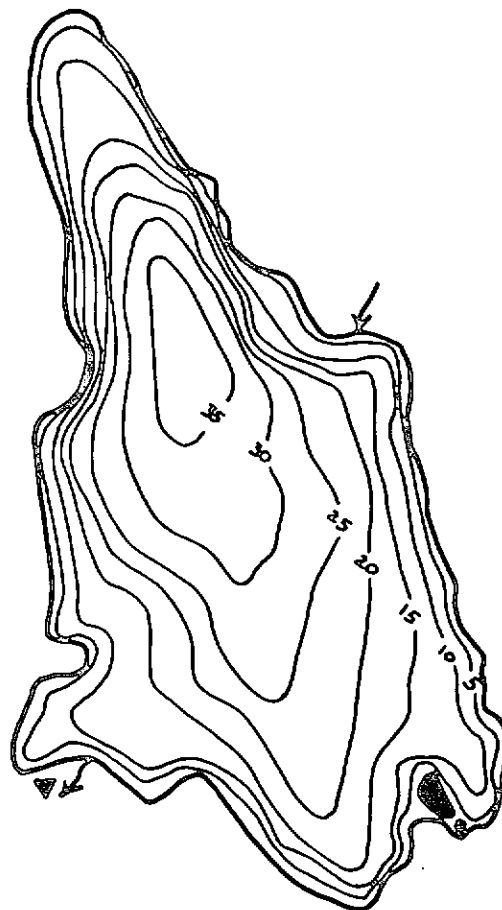
 SAMPLE SITE 1
 DATE 6/27/73
 TIME 1245 1250
 DEPTH (FT) 3. 30.
 TOTAL NITRATE (N) 0.00 0.01
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.09 0.21
 TOTAL ORGANIC NITROGEN (N) 0.06 0.18
 TOTAL PHOSPHORUS (P) 0.014 0.057
 DISSOLVED ORTHOPHOSPHATE (P) 0.004 0.002
 SPECIFIC CONDUCTANCE (MICROMHOS) 69 78
 WATER TEMPERATURE (DEG C) 19.8 10.0
 COLOR (PLATINUM-COBALT UNITS) 15 30
 SECCHI-DISC VISIBILITY (FT) 12
 DISSOLVED OXYGEN 9.2 0.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 6/27/73
 TIME 1255
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 5
 FECAL COLIFORM, MAXIMUM (COL./100ML) 8
 FECAL COLIFORM, MEAN (COL./100ML) 6

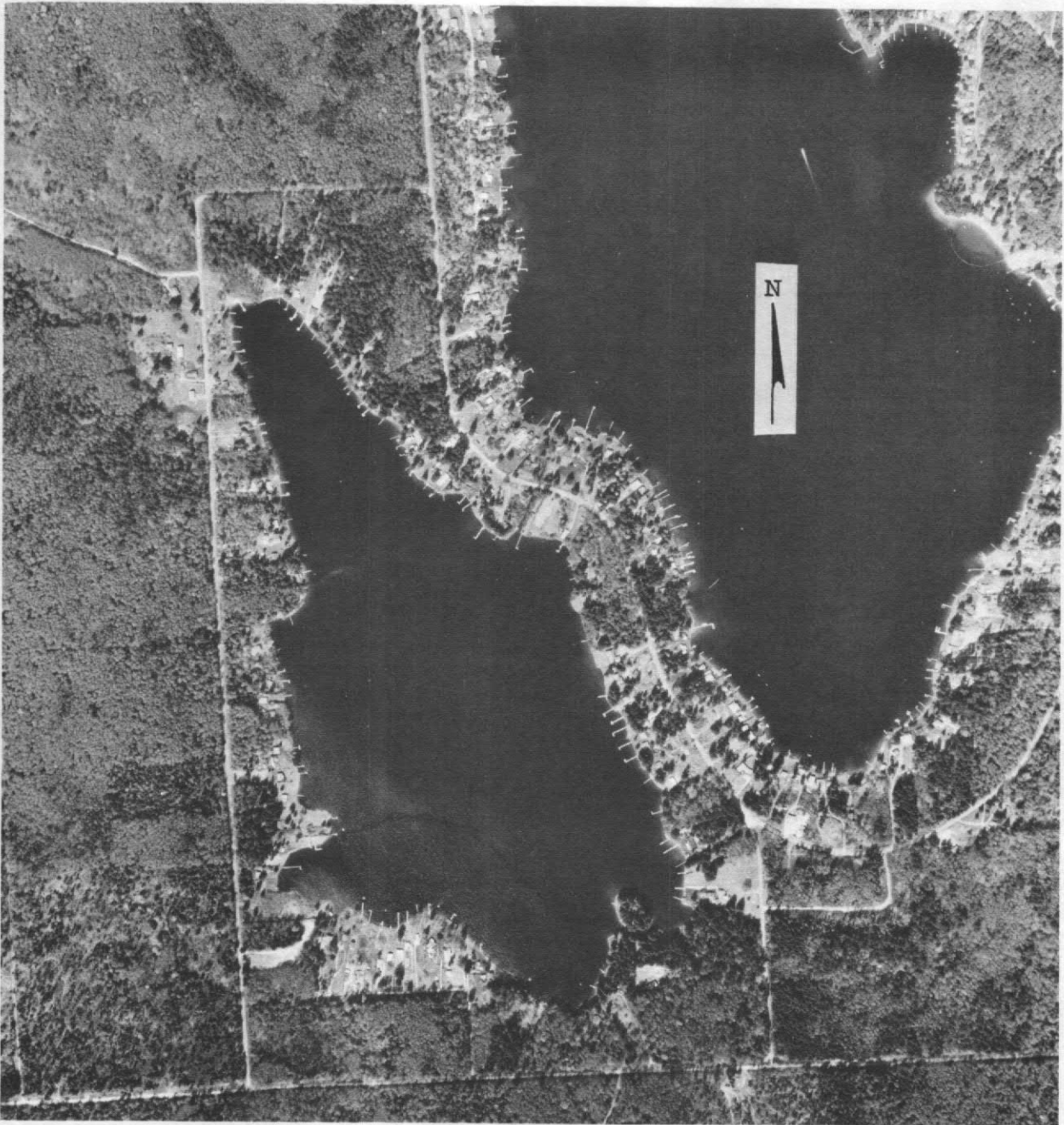
REMARKS

 THE LAKE IS FED VIA A CANAL FROM LAKE GOODWIN. THE LITTORAL BOTTOM IS COBBLE, GRAVEL, AND SAND SUPPORTED A SPARSE GROWTH OF ROOTED AQUATIC PLANTS. LAKE-STAGE RECORDS HAVE BEEN COLLECTED BY THE U.S. GEOLOGICAL SURVEY SINCE 1953. THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES IN 1973. THE PLANT SURVEY WAS MADE ON AUGUST 15, 1973.



EXPLANATION
— 10 —
Line of equal
water depth
Interval 5 feet

Shoecraft Lake, Snohomish County. From Washington
Department of Game, May 22, 1952.



Shoecraft Lake, Snohomish County. April 16, 1970. Approx. scale 1:12,000.

SILVER (28N-5E-30) LAKE

SNOHOMISH COUNTY

LATITUDE 47°53'18" LONGITUDE 122°12'31" T28N-R5E-30
 SAMMAMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.09 SQ MI
 ALTITUDE 426. FT
 LAKE AREA 110. ACRES
 LAKE VOLUME 2500. ACRE-FT
 MEAN DEPTH 24. FT
 MAXIMUM DEPTH 51. FT
 SHORELINE LENGTH 1.8 MI
 SHORELINE CONFIGURATION 1.2
 DEVELOPMENT OF VOLUME 0.47
 BOTTOM SLOPE 2.1 %
 BASIN GEOLOGY SED./META.
 INFLOW NONE VISIBLE
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 43 %
 NUMBER OF NEARSHORE HOMES 76
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 8 %
 RESIDENTIAL SUBURBAN 31 %
 AGRICULTURAL 9 %
 FOREST OR UNPRODUCTIVE 37 %
 LAKE SURFACE 15 %
 PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

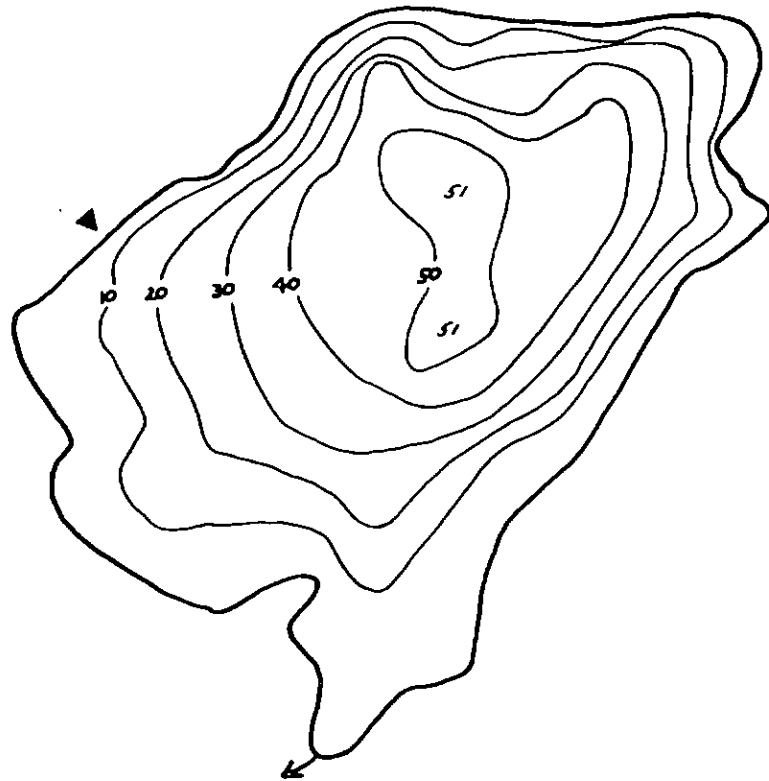
 SAMPLE SITE 1
 DATE 7/25/73
 TIME 1425 1435
 DEPTH (FT) 3. 46.
 TOTAL NITRATE (N) 0.02 0.04
 TOTAL NITRITE (N) 0.00 0.01
 TOTAL AMMONIA (N) 0.10 0.67
 TOTAL ORGANIC NITROGEN (N) 0.23 0.36
 TOTAL PHOSPHORUS (P) 0.021 0.053
 TOTAL ORTHOPHOSPHATE (P) 0.002 0.021
 SPECIFIC CONDUCTANCE (MICROMHOS) 74 79
 WATER TEMPERATURE (DEG C) 21.5 7.5
 COLOR (PLATINUM-COBALT UNITS) 5 30
 SECCHI-DISC VISIBILITY (FT) 13
 DISSOLVED OXYGEN 9.2 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
 LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/25/73
 TIME 1440
 NUMBER OF FECAL COLIFORM SAMPLES 3
 FECAL COLIFORM, MINIMUM (COL./100ML) 2
 FECAL COLIFORM, MAXIMUM (COL./100ML) 18
 FECAL COLIFORM, MEAN (COL./100ML) 8

REMARKS

 AN URBAN LAKE LOCATED SOUTH OF EVERETT. PARK AND SWIMMING FACILITIES
 ARE LOCATED ON THE NORTHWEST SHORE AND THE LAKE RECEIVES HEAVY
 RECREATIONAL USE. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



0 1000 2000 FEET

EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Silver (28N-5E-30) Lake, Snohomish County.
From Washington Department of Game, July 18, 1947.



Silver (28N-5E-30) Lake, Snohomish County.
August 7, 1973. Approx. scale 1:13,000.

SILVER (29N-11E-28) LAKE

SNOHOMISH COUNTY

LATITUDE 47°58'22" LONGITUDE 121°24'12" T29N-R11E-28
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.37 SQ MI
ALTITUDE 4260. FT
LAKE AREA 33. ACRES
LAKE VOLUME 1300. ACRE-FT
MEAN DEPTH 39. FT
MAXIMUM DEPTH 120. FT
SHORELINE LENGTH 0.91 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.32
BOTTOM SLOPE 9.1 %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 86 %
LAKE SURFACE 14 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/27/73
TIME 1040 1050
DEPTH (FT) 3. 115.
TOTAL NITRATE (N) 0.02 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.03 0.51
TOTAL ORGANIC NITROGEN (N) 0.01 0.24
TOTAL PHOSPHORUS (P) 0.033 0.009
TOTAL ORTHOPHOSPHATE (P) 0.003 0.003
SPECIFIC CONDUCTANCE (MICROMHOS) 8 39
WATER TEMPERATURE (DEG C) 4.6 4.2
COLOR (PLATINUM-COBALT UNITS) 0 125
SECCHI-DISC VISIBILITY (FT) 75
DISSOLVED OXYGEN 10.9 0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/27/73
TIME 1100
NUMBER OF FECAL COLIFORM SAMPLES 0
FECAL COLIFORM, MINIMUM (COL./100ML) --
FECAL COLIFORM, MAXIMUM (COL./100ML) --
FECAL COLIFORM, MEAN (COL./100ML) --

REMARKS

THE WEST SIDE OF THE LAKE HAS A STEEP BEDROCK CLIFF. AT THE TIME OF SAMPLING, SNOW AND ICE PARTIALLY COVERED THE LAKE. THE WATER HAS A HIGH CLARITY AS INDICATED BY THE SECCHI-DISC READING OF 75 FEET. DISSOLVED OXYGEN WAS DEPLETED AND HYDROGEN SULFIDE WAS DETECTED AT THE LOWER SAMPLING DEPTH. NO AQUATIC MACROPHYTES WERE OBSERVED.



0 500 1000 FEET

EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Silver (29N-11E-28) Lake, Snohomish County. Bathymetric map
From U.S. Geological Survey, September 15, 1973.
Aerial photo, August 7, 1973.

SOUTH LAKE

SNOHOMISH COUNTY

LATITUDE 48° 5'53" LONGITUDE 121°28'58" T30N-R10E-11
SKAGIT RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.24 SQ MI
ALTITUDE	4542. FT
LAKE AREA	11. ACRES
LAKE VOLUME	350. ACRE-FT
MEAN DEPTH	32. FT
MAXIMUM DEPTH	82. FT
SHOPELINE LENGTH	0.69 MI
SHORELINE CONFIGURATION	1.5
DEVELOPMENT OF VOLUME	0.39
BOTTOM SLOPE	11. %
BASIN GEOLOGY	IGNEOUS
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	0 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	93 %
LAKE SURFACE	7 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

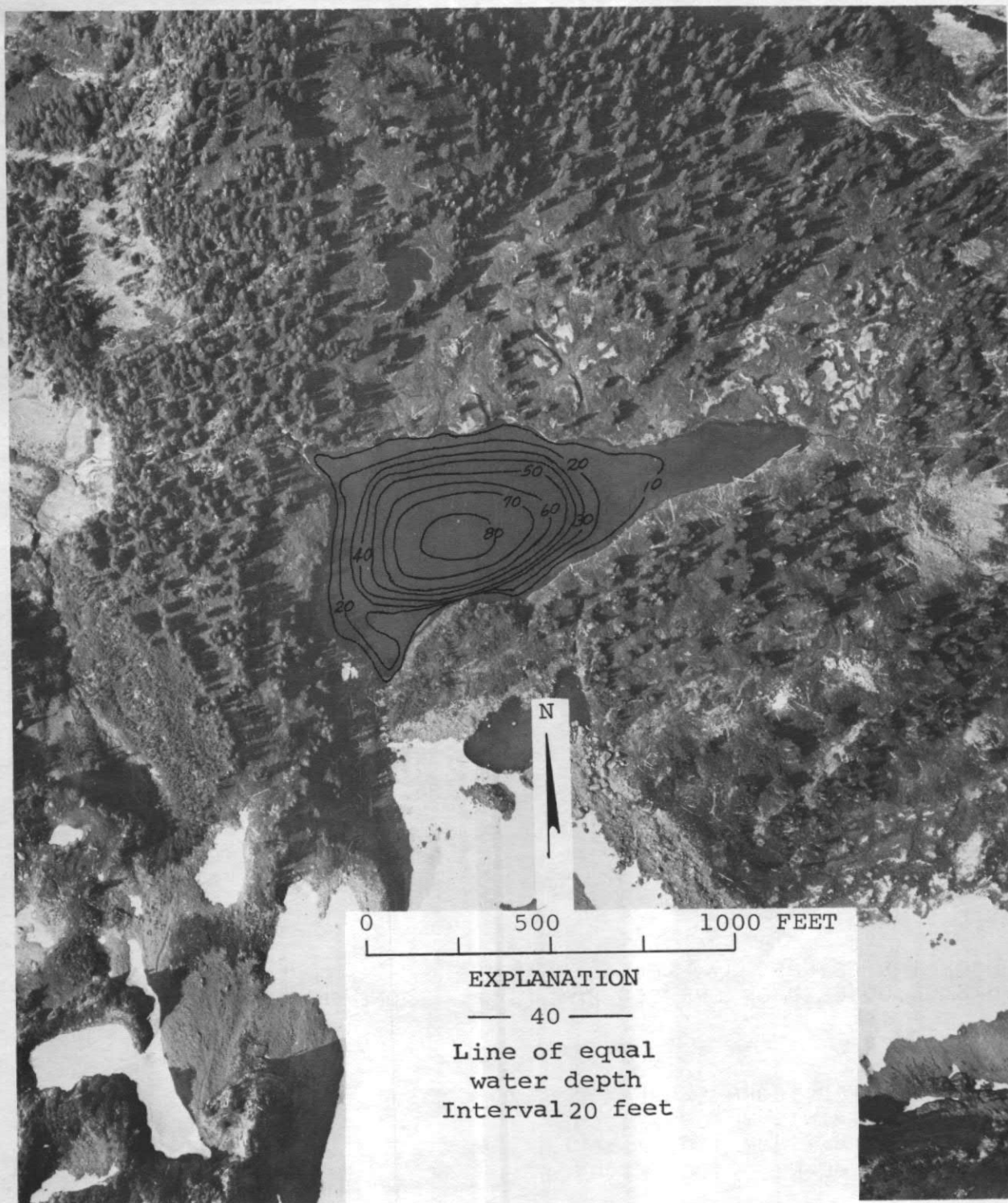
SAMPLE SITE	1
DATE	8/14/73
TIME	1610 1620
DEPTH (FT)	3. 59.
TOTAL NITRATE (N)	0.02 0.01
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.04 0.01
TOTAL ORGANIC NITROGEN (N)	0.06 0.03
TOTAL PHOSPHORUS (P)	0.004 0.001
TOTAL ORTHOPHOSPHATE (P)	0.001 0.000
SPECIFIC CONDUCTANCE (MICROMHOS)	15 28
WATER TEMPERATURE (DEG C)	15.3 4.4
COLOR (PLATINUM-COBALT UNITS)	5 5
SECCHI-DISC VISIRILITY (FT)	52
DISSOLVED OXYGEN	9.1 6.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	8/14/73
TIME	1600
NUMBER OF FECAL COLIFORM SAMPLES	0
FECAL COLIFORM, MINIMUM (COL./100ML)	--
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

THE WATER CLARITY IS HIGH AS INDICATED BY THE SECCHI-DISC READING OF 52 FEET. NO AQUATIC MACROPHYTES WERE OBSERVED. THE WATER SAMPLE CONTAINED NUMEROUS RED COPEPODS.



South Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 16, 1973.
Aerial photo, August 3, 1973.

STEVENS LAKE

SNOHOMISH COUNTY

LATITUDE 48° 0'53" LONGITUDE 122° 3'55" T29N-R6E-8
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 6.83 SQ MI
ALTITUDE 210. FT
LAKE AREA 1000. ACRES
LAKE VOLUME 65000. ACRE-FT
MEAN DEPTH 63. FT
MAXIMUM DEPTH 160. FT
SHORELINE LENGTH 7.1 MI
SHORELINE CONFIGURATION 1.6
DEVELOPMENT OF VOLUME 0.41
BOTTOM SLOPE 2.0 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 100 %
NUMBER OF NEARSHORE HOMES 297
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 76 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 0 %
LAKE SURFACE 24 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

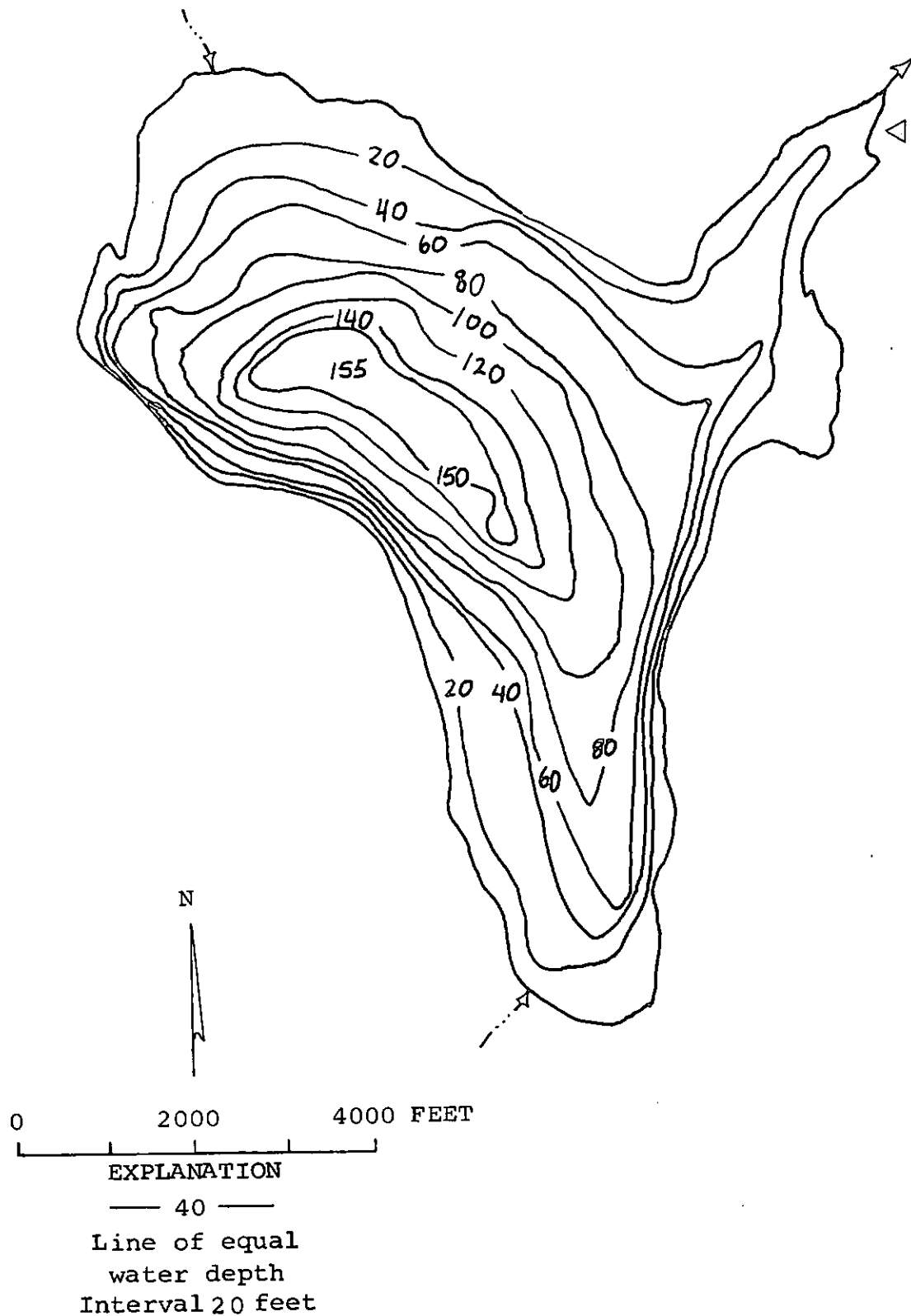
SAMPLE SITE 1
DATE 7/27/72
TIME 1320 1330
DEPTH (FT) 3. 141.
DISSOLVED NITRATE (N) 0.05 0.55
DISSOLVED NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.05 0.29
TOTAL ORGANIC NITROGEN (N) 0.38 0.20
TOTAL PHOSPHORUS (P) 0.005 0.056
DISSOLVED ORTHOPHOSPHATE (P) 0.001 0.052
SPECIFIC CONDUCTANCE (MICROMHOS) 73 80
WATER TEMPERATURE (DEG C) 21.8 6.1
COLOR (PLATINUM-COBALT UNITS) 5 5
SECCHI-DISC VISIBILITY (FT) 17
DISSOLVED OXYGEN 9.7 3.5

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/27/72
TIME 1400
NUMBER OF FECAL COLIFORM SAMPLES 6
FECAL COLIFORM, MINIMUM (COL./100ML) 2
FECAL COLIFORM, MAXIMUM (COL./100ML) 10
FECAL COLIFORM, MEAN (COL./100ML) 5

REMARKS

THE LARGEST NATURAL LAKE IN SNOHOMISH COUNTY. THE LAKE HAS A PARK AND MARINA FACILITIES AND RECEIVES HEAVY RECREATIONAL USE. THE LITTORAL BOTTOM IS MOSTLY SAND, GRAVEL, AND COBBLE. IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE FOUR TIMES. THE PLANT SURVEY WAS MADE OCTOBER 11, 1972.



Stevens Lake, Snohomish County. From Washington
Department of Game, July 1955.



Stevens Lake, Snohomish County. August 9, 1972. Approx. scale 1:17,000.

STICKNEY LAKE

SNOHOMISH COUNTY

LATITUDE 47°52'29" LONGITUDE 122°15'25" T28N-R4E-35

LAKE WASHINGTON BASIN

PHYSICAL DATA

DRAINAGE AREA	3.56 SQ MI
ALTITUDE	450. FT
LAKE AREA	19. ACRES
LAKE VOLUME	280. ACRE-FT
MEAN DEPTH	15. FT
MAXIMUM DEPTH	34. FT
SHORELINE LENGTH	0.96 MI
SHORELINE CONFIGURATION	1.6
DEVELOPMENT OF VOLUME	0.45
BOTTOM SLOPE	3.4 %
BASIN GEOLOGY	SED./META.
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	59 %
NUMBER OF NEARSHORE HOMES	33
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	4 %
RESIDENTIAL SUBURBAN	18 %
AGRICULTURAL	8 %
FOREST OR UNPRODUCTIVE	69 %
LAKE SURFACE	1 %
PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

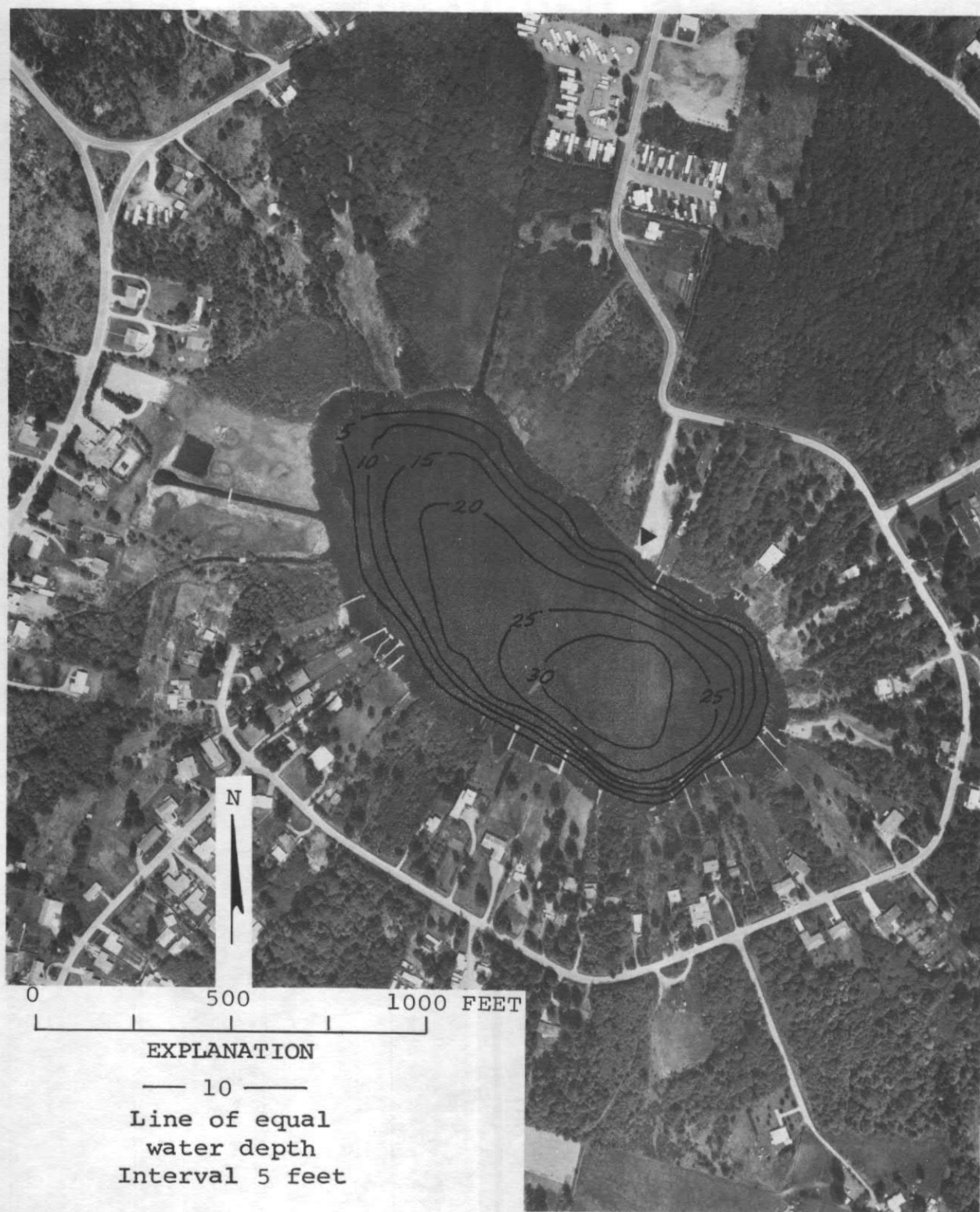
SAMPLE SITE	1
DATE	7/25/73
TIME	1125 1135
DEPTH (FT)	3. 17.
TOTAL NITRATE (N)	0.04 0.32
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.13 0.29
TOTAL ORGANIC NITROGEN (N)	0.44 0.24
TOTAL PHOSPHORUS (P)	0.016 0.022
TOTAL ORTHOPHOSPHATE (P)	0.006 0.007
SPECIFIC CONDUCTANCE (MICROMHOS)	83 89
WATER TEMPERATURE (DEG C)	20.5 9.5
COLOR (PLATINUM-COBALT UNITS)	35 35
SECCHI-DISC VISIRILITY (FT)	7
DISSOLVED OXYGEN	8.6 0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	7/25/73
TIME	1140
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	89
FECAL COLIFORM, MAXIMUM (COL./100ML)	104
FECAL COLIFORM, MEAN (COL./100ML)	96

REMARKS

AN URBAN LAKE LOCATED SOUTH OF EVERETT. THE DRAINAGE AREA IS LARGE IN RELATION TO THE SIZE OF THE LAKE. THE WATER IS A BROWN TEA COLOR. THE LITTORAL BOTTOM IS SOFT MUCK AND EMERSED PLANTS COVERED THE ENTIRE SHORELINE. METRO OF SEATTLE STUDIED THE LAKE IN 1971-72.



EXPLANATION
— 10 —
Line of equal
water depth
Interval 5 feet

Stickney Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, April 17, 1973.
Aerial photo, May 13, 1973.

STORM LAKE

SNOHOMISH COUNTY

LATITUDE 47°56' 6" LONGITUDE 121°58' 0" T28N-R7E-7
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.38 SQ MI
ALTITUDE 528. FT
LAKE AREA 79. ACRES
LAKE VOLUME 1800. ACRE-FT
MEAN DEPTH 22. FT
MAXIMUM DEPTH 46. FT
SHORELINE LENGTH 1.7 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.49
BOTTOM SLOPE 2.2 %
BASIN GEOLOGY SED./META.
INFLOW NONE VISIBLE
OUTFLOW CHANNEL ABSENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 66 %
NUMBER OF NEARSHORE HOMES 26
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 6 %
AGRICULTURAL 14 %
FOREST OR UNPRODUCTIVE 48 %
LAKE SURFACE 32 %
PUBLIC BOAT ACCESS TO LAKE YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/23/73
TIME 1400 1410
DEPTH (FT) 3. 31.
TOTAL NITRATE (N) 0.01 0.10
TOTAL NITRITE (N) 0.01 0.01
TOTAL AMMONIA (N) 0.04 0.11
TOTAL ORGANIC NITROGEN (N) 0.37 0.23
TOTAL PHOSPHORUS (P) 0.013 0.037
TOTAL ORTHOPHOSPHATE (P) 0.007 0.016
SPECIFIC CONDUCTANCE (MICROMHOS) 30 36
WATER TEMPERATURE (DEG C) 21.2 6.8
COLOR (PLATINUM-COBALT UNITS) 15 50
SECCHI-DISC VISIBILITY (FT) 7
DISSOLVED OXYGEN 8.5 0.9

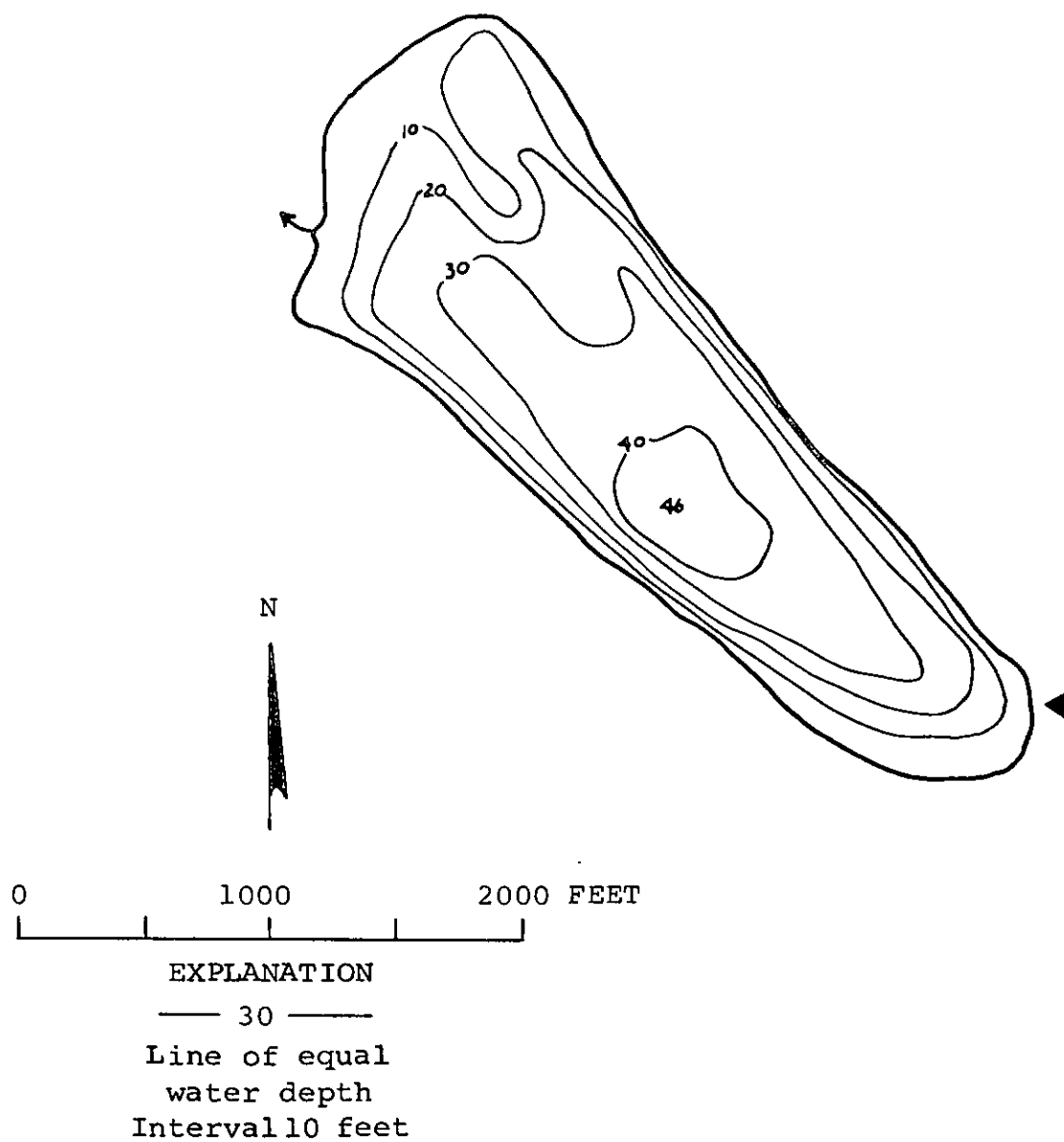
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

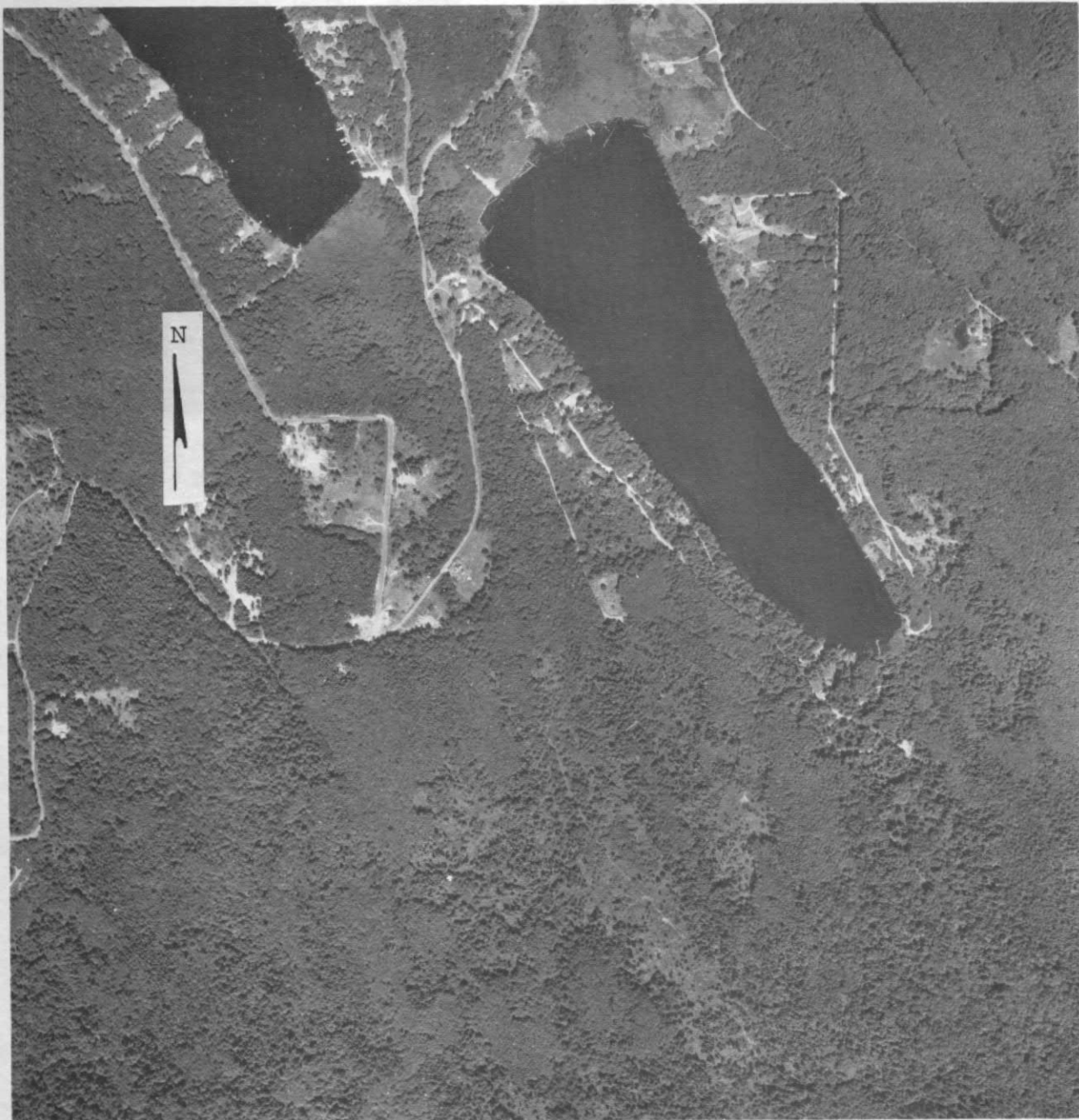
DATE 7/23/73
TIME 1900
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 2
FECAL COLIFORM, MEAN (COL./100ML) 2

REMARKS

TREES AND SHRUBS OVERHANG THE WATER. LOGS AND WOOD DEBRIS COVER THE SHORELINE.



Storm Lake, Snohomish County. From Washington
Department of Game, March 18, 1948.



Storm Lake, Snohomish County. July 17, 1969. Approx. scale 1:12,000.

SUNDAY LAKE

SNOHOMISH COUNTY

LATITUDE 48°13'44" LONGITUDE 122°15' 5" T32N-R4E-26
 STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

 DRAINAGE AREA 1.67 SQ MI
 ALTITUDE 211. FT
 LAKE AREA 46. ACRES
 LAKE VOLUME 370. ACRE-FT
 MEAN DEPTH 8. FT
 MAXIMUM DEPTH 20. FT
 SHORELINE LENGTH 1.3 MI
 SHORELINE CONFIGURATION 1.4
 DEVELOPMENT OF VOLUME 0.40
 BOTTOM SLOPE 1.3 %
 BASIN GEOLOGY SED./META.
 INFLOW INTERMITTENT
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 56 %
 NUMBER OF NEARSHORE HOMES 23
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 0 %
 AGRICULTURAL 28 %
 FOREST OR UNPRODUCTIVE 68 %
 LAKE SURFACE 4 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

 SAMPLE SITE 1
 DATE 7/26/73
 TIME 1525 1530
 DEPTH (FT) 3. 13.
 TOTAL NITRATE (N) 0.01 0.01
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.14 0.13
 TOTAL ORGANIC NITROGEN (N) 0.39 0.42
 TOTAL PHOSPHORUS (P) 0.018 0.021
 TOTAL ORTHOPHOSPHATE (P) 0.003 0.007
 SPECIFIC CONDUCTANCE (MICROMHOS) 70 71
 WATER TEMPERATURE (DEG C) 22.7 17.7
 COLOR (PLATINUM-COBALT UNITS) 20 20
 SECCHI-DISC VISIBILITY (FT) 10
 DISSOLVED OXYGEN 8.8 2.2

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 10- 25 %

DATE 7/26/73
 TIME 1550
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) 14
 FECAL COLIFORM, MAXIMUM (COL./100ML) 37
 FECAL COLIFORM, MEAN (COL./100ML) 26

REMARKS

 THE LAKE HAD A HEAVY COVER OF EMERSED PLANTS (WATERSHIELD, LILIES, AND SEDGE) AND SUBMERSED PLANTS (CHARA AND ELODEA). THE LITTORAL BOTTOM IS MOSTLY MUCK.



EXPLANATION
— 10 —
Line of equal
water depth
Interval 5 feet

Sunday Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, July 27, 1973.
Aerial photo, July 14, 1973.

SUNSET LAKE

SNOHOMISH COUNTY

LATITUDE 47°49'16" LONGITUDE 121°23'57" T27N-R11E-21

SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA	0.24 SQ MI
ALTITUDE	4180. FT
LAKE AREA	35. ACRES
LAKE VOLUME	2600. ACRE-FT
MEAN DEPTH	74. FT
MAXIMUM DEPTH	150. FT
SHORELINE LENGTH	1.0 MI
SHORELINE CONFIGURATION	1.3
DEVELOPMENT OF VOLUME	0.50
BOTTOM SLOPE	11. %
BASIN GEOLOGY	IGNEOUS
INFLOW	INTERMITTENT
OUTFLOW CHANNEL	PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT	0 %
NUMBER OF NEARSHORE HOMES	0
LAND USE IN DRAINAGE BASIN	
RESIDENTIAL URBAN	0 %
RESIDENTIAL SUBURBAN	0 %
AGRICULTURAL	0 %
FOREST OR UNPRODUCTIVE	77 %
LAKE SURFACE	23 %
PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

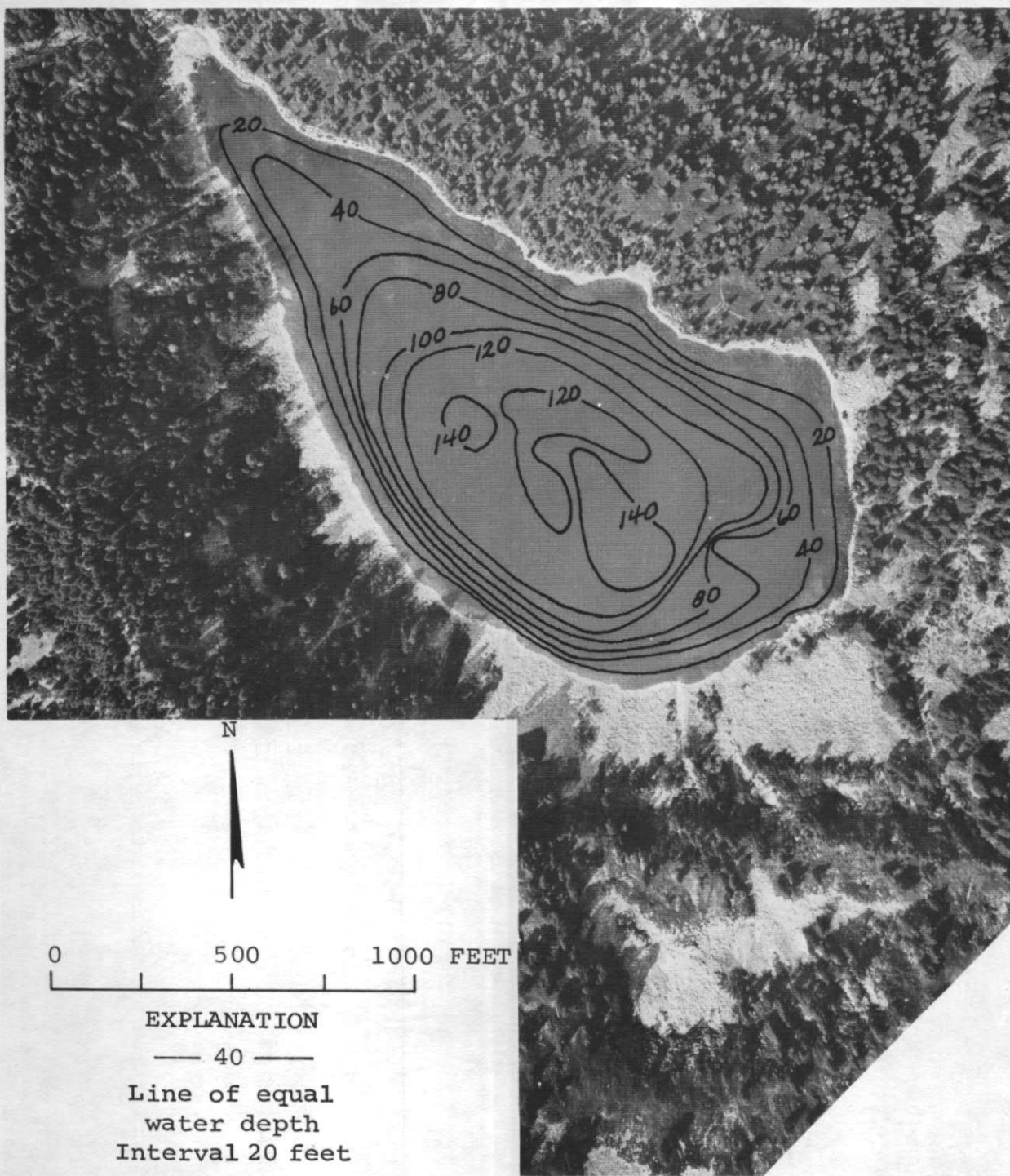
SAMPLE SITE	1
DATE	7/27/73
TIME	1315 1325
DEPTH (FT)	3. 128.
TOTAL NITRATE (N)	0.03 0.05
TOTAL NITRITE (N)	0.00 0.00
TOTAL AMMONIA (N)	0.03 0.07
TOTAL ORGANIC NITROGEN (N)	0.02 0.02
TOTAL PHOSPHORUS (P)	0.001 0.006
TOTAL ORTHOPHOSPHATE (P)	0.001 0.000
SPECIFIC CONDUCTANCE (MICROMHOS)	8 11
WATER TEMPERATURE (DEG C)	15.7 4.2
COLOR (PLATINUM-COBALT UNITS)	0 0
SECCHI-DISC VISIRILITY (FT)	78
DISSOLVED OXYGEN	8.4 7.7

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	7/27/73
TIME	1330
NUMBER OF FECAL COLIFORM SAMPLES	0
FECAL COLIFORM, MINIMUM (COL./100ML)	--
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

NO AQUATIC MACROPHYTES WERE OBSERVED. THE WATER CLARITY IS HIGH AS INDICATED BY A SECCHI-DISC READING OF 78 FEET.



Sunset Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 13, 1973.
Aerial photo, August 3, 1973.

TOMTIT LAKE

SNOHOMISH COUNTY

LATITUDE 47°49' 2" LONGITUDE 121°47' 2" T27N-R8E-21
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 2.82 SQ MI
ALTITUDE 608. FT
LAKE AREA 26. ACRES
LAKE VOLUME 260. ACPE-FT
MEAN DEPTH 10. FT
MAXIMUM DEPTH 20. FT
SHORELINE LENGTH 0.96 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.49
BOTTOM SLOPE 1.7 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 99 %
LAKE SURFACE 1 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

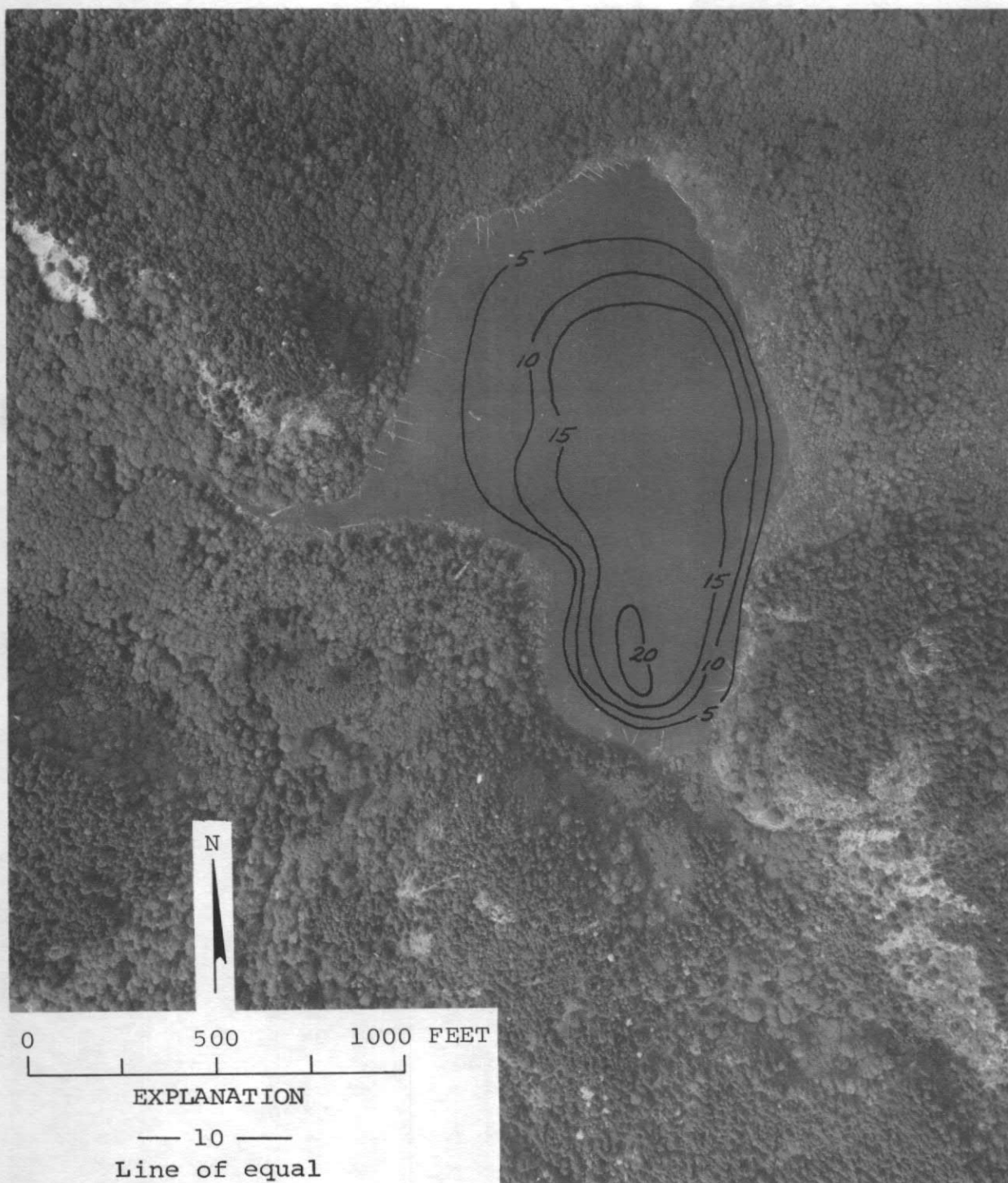
SAMPLE SITE 1
DATE 7/30/73
TIME 1450 1455
DEPTH (FT) 3. 14.
TOTAL NITRATE (N) 0.01 0.01
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.05 0.07
TOTAL ORGANIC NITROGEN (N) 0.10 0.11
TOTAL PHOSPHORUS (P) 0.004 0.004
TOTAL ORTHOPHOSPHATE (P) 0.002 0.002
SPECIFIC CONDUCTANCE (MICROMHOS) 58 53
WATER TEMPERATURE (DEG C) 23.7 16.0
COLOR (PLATINUM-COBALT UNITS) 0 5
SECCHI-DISC VISIBILITY (FT) 15
DISSOLVED OXYGEN 8.4 7.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS 1- 10 %

DATE 7/30/73
TIME 1500
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) 6
FECAL COLIFORM, MEAN (COL./100ML) 3

REMARKS

MOST OF THE SHORE MARGIN IS MARSH AND WETLAND. A HEAVY GROWTH OF
SUBMERSED PLANTS (PONDWEED) WAS SUPPORTED ON THE MUCK LITTORAL BOTTOM.
SOLVED OXYGEN WAS ABOVE 6.0 MG/LITR THROUGHOUT THE WATER COLUMN.



EXPLANATION
— 10 —
Line of equal
water depth
Interval 5 feet

Tomtit Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, July 19, 1973.
Aerial photo, May 13, 1973.

TWENTYTWO LAKE

SNOHOMISH COUNTY

LATITUDE 48° 4' 1" LONGITUDE 121°45'40" T30N-R8E-22
STILLAGUAMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.67 SQ MI
ALTITUDE 2445. FT
LAKE AREA 44. ACRES
LAKE VOLUME 890. ACRE-FT
MEAN DEPTH 20. FT
MAXIMUM DEPTH 53. FT
SHORELINE LENGTH 1.1 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.38
BOTTOM SLOPE 3.4 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 90 %
LAKE SURFACE 10 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

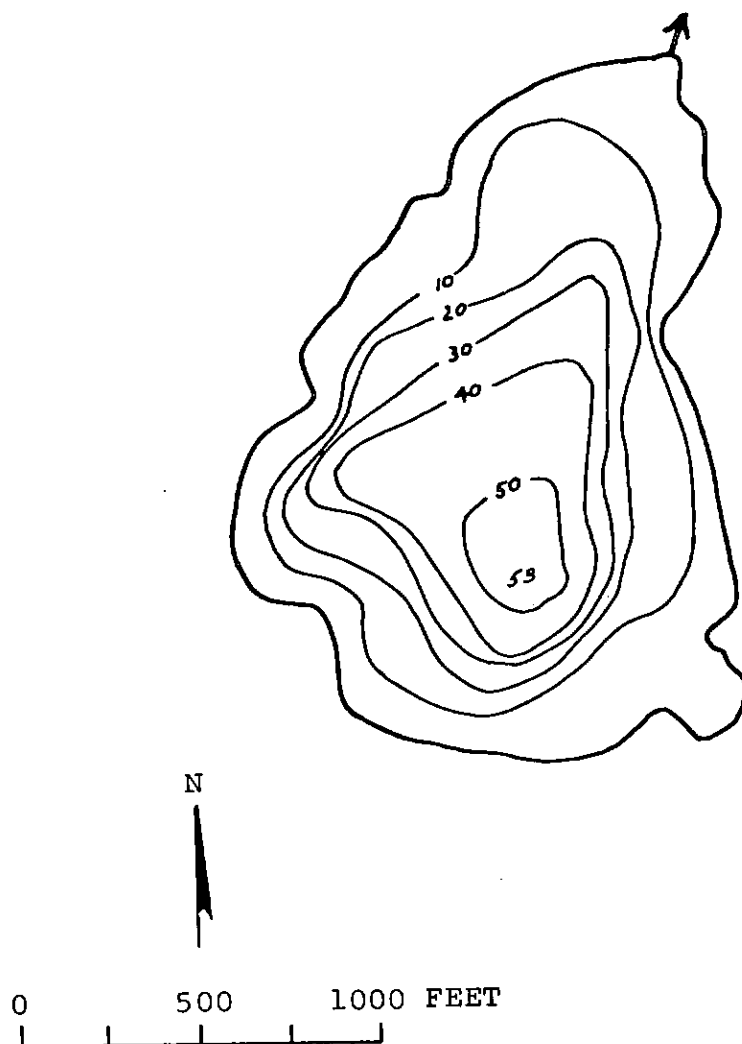
SAMPLE SITE 1
DATE 8/ 2/73
TIME 1400 1405
DEPTH (FT) 3. 36.
TOTAL NITRATE (N) 0.05 0.06
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.02 0.02
TOTAL ORGANIC NITROGEN (N) 0.04 0.05
TOTAL PHOSPHORUS (P) 0.002 0.009
TOTAL ORTHOPHOSPHATE (P) 0.002 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 14 14
WATER TEMPERATURE (DEG C) 16.0 9.8
COLOR (PLATINUM-COBALT UNITS) 20 10
SECCHI-DISC VISIBILITY (FT) >39
DISSOLVED OXYGEN 8.6 10.6

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 8/ 2/73
TIME 1900
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE LAKE IS SURROUNDED BY STEEP SLOPES. NO AQUATIC MACROPHYTES WERE OBSERVED.

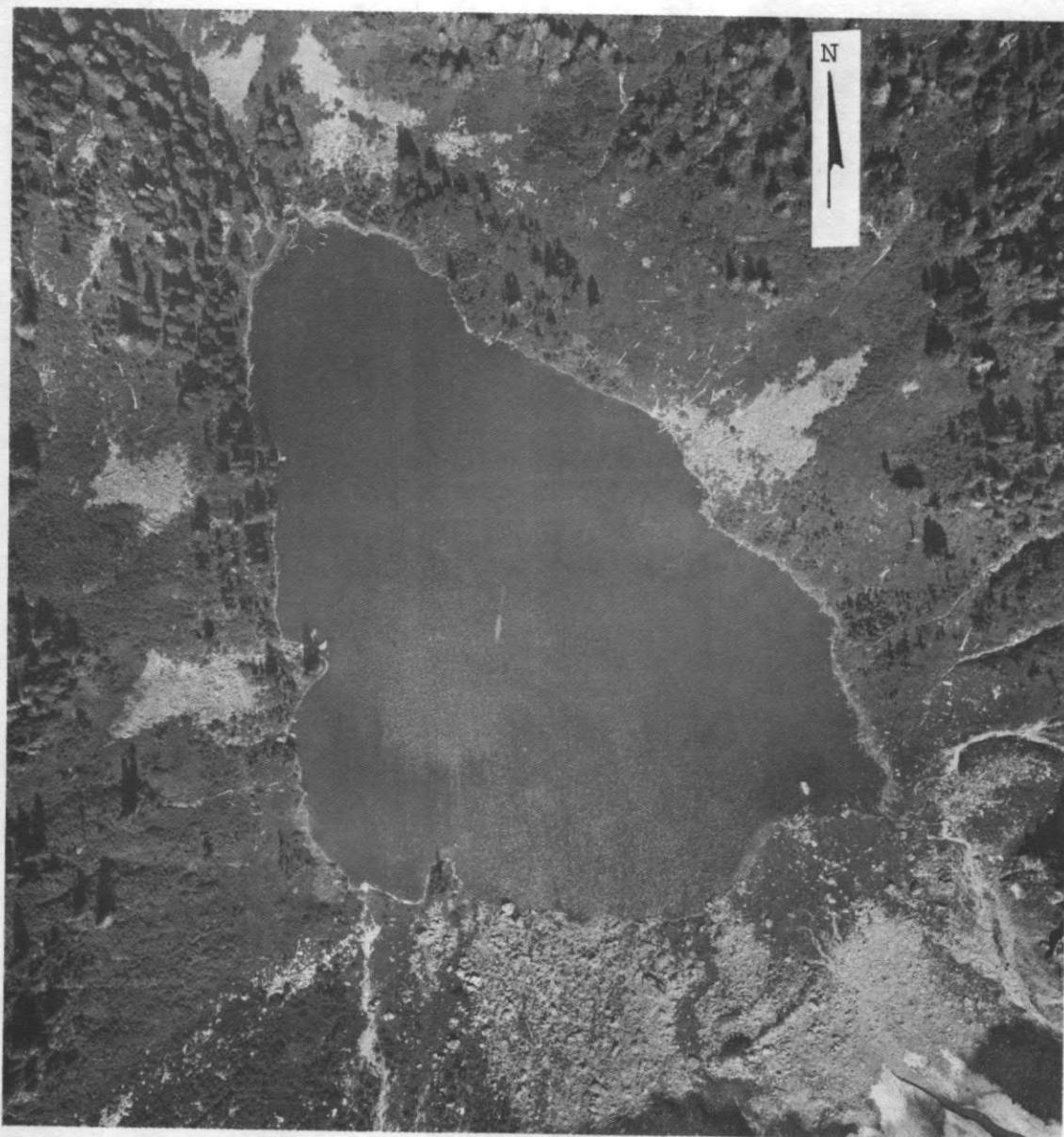


EXPLANATION

— 20 —

Line of equal
water depth
Interval 10 feet

Twentytwo Lake, Snohomish County. From Washington
Department of Game, September 16, 1954.



Twentytwo Lake, Snohomish County. August 7, 1973. Approx. scale 1:4800.

TWIN, LOWER LAKE

SNOHOMISH COUNTY

LATITUDE 47°56'57" LONGITUDE 121°22'45" T28N-R11E-3
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.84 SQ MI
ALTITUDE 4620. FT
LAKE AREA 22. ACRES
LAKE VOLUME 1700. ACRE-FT
MEAN DEPTH 76. FT
MAXIMUM DEPTH 180. FT
SHORELINE LENGTH 0.79 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.43
BOTTOM SLOPE 16. %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 85 %
LAKE SURFACE 15 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE 1
DATE 7/24/73
TIME 1400 1410
DEPTH (FT) 3. 151.
TOTAL NITRATE (N) 0.04 0.06
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.01 0.01
TOTAL ORGANIC NITROGEN (N) 0.03 0.05
TOTAL PHOSPHORUS (P) 0.002 0.004
TOTAL ORTHOPHOSPHATE (P) 0.002 0.002
SPECIFIC CONDUCTANCE (MICROMHOS) 19 22
WATER TEMPERATURE (DEG C) 9.9 4.0
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 56
DISSOLVED OXYGEN 10.2 7.4

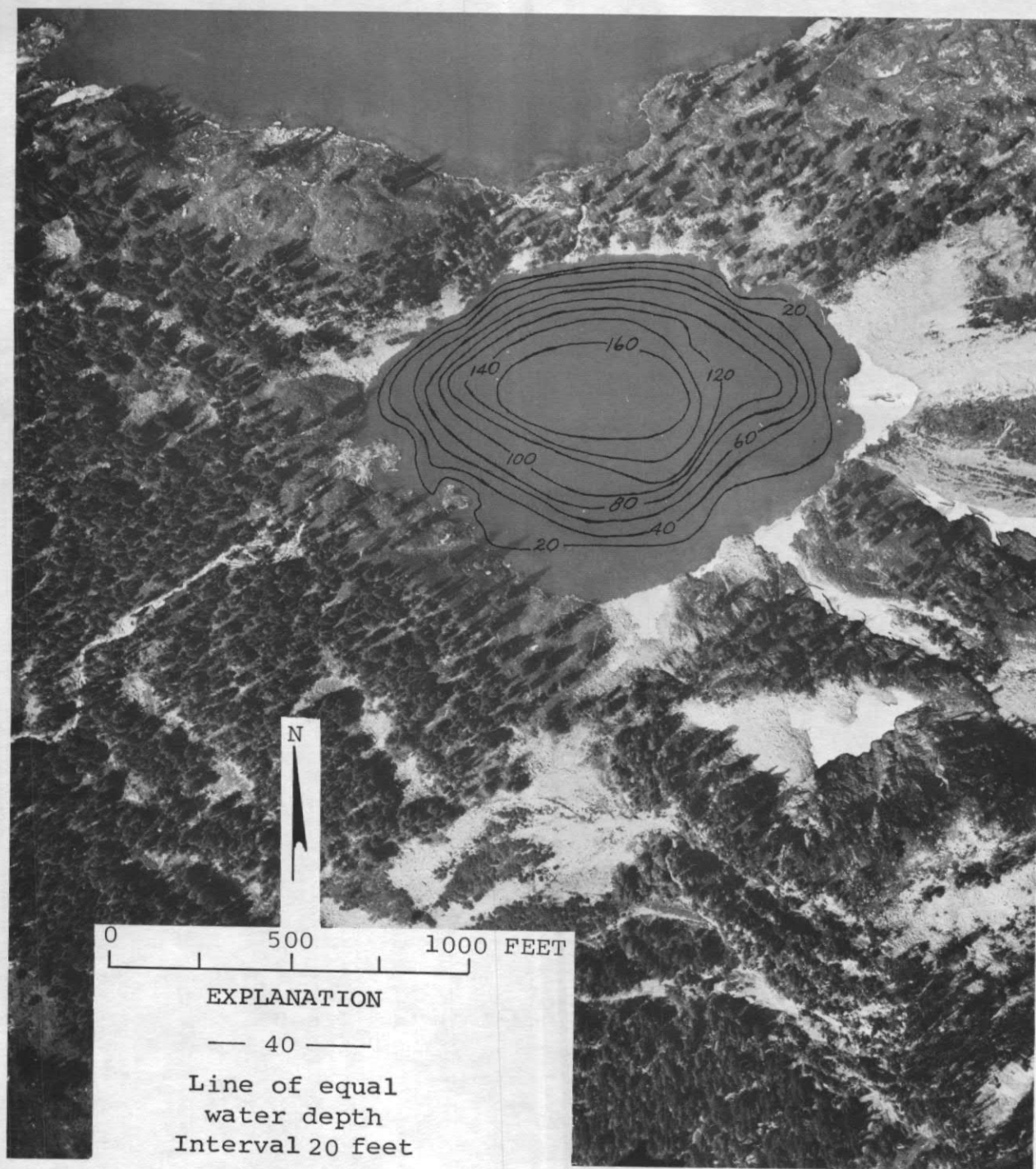
LAKE SHORELINE COVERED BY EMERSED PLANTS
LAKE SURFACE COVERED BY EMERSED PLANTS

LITTLE OR NONE
NONE OR <1 %

DATE 7/24/73
TIME 1400
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE LAKE IS FED FROM UPPER TWIN LAKE. NO AQUATIC MACROPHYTES WERE OBSERVED.



Twin, Lower Lake, Snohomish County. Bathymetric map from
U.S. Geological Survey, September 13, 1973.
Aerial photo, August 3, 1973.

TWIN. UPPER LAKE

SNOHOMISH COUNTY

LATITUDE 47°57' 5" LONGITUDE 121°22'37" T29N-R11E-34
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 0.70 SQ MI
ALTITUDE 4700. FT
LAKE AREA 60. ACRES
LAKE VOLUME 7800. ACRE-FT
MEAN DEPTH 130. FT
MAXIMUM DEPTH 250. FT
SHORELINE LENGTH 1.4 MI
SHORELINE CONFIGURATION 1.3
DEVELOPMENT OF VOLUME 0.52
BOTTOM SLOPE 14. %
BASIN GEOLOGY IGNEOUS
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 87 %
LAKE SURFACE 13 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

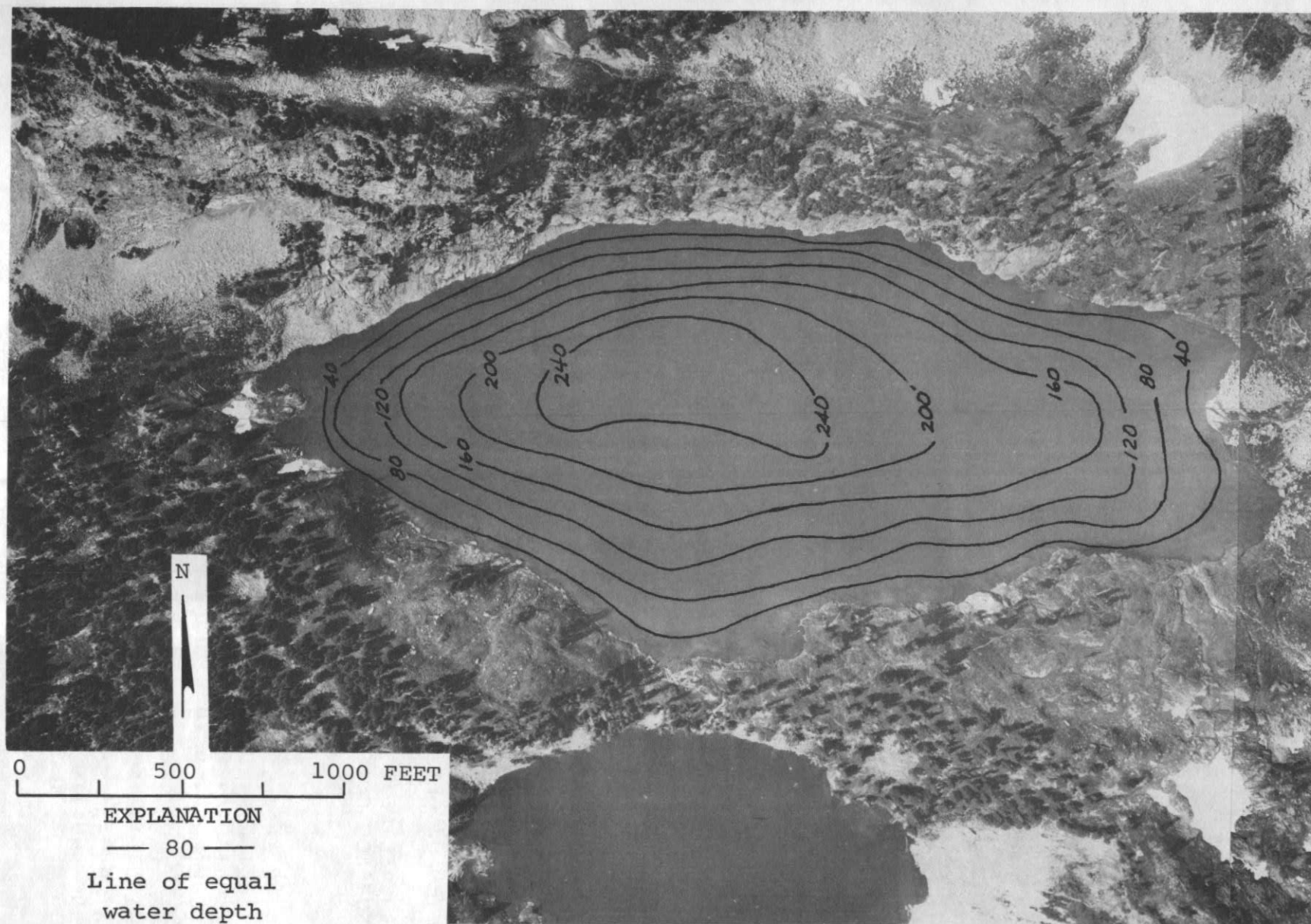
SAMPLE SITE 1
DATE 7/24/73
TIME 1700 1710
DEPTH (FT) 3. 220.
TOTAL NITRATE (N) 0.04 0.11
TOTAL NITRITE (N) 0.01 0.00
TOTAL AMMONIA (N) 0.01 0.07
TOTAL ORGANIC NITROGEN (N) 0.03 0.02
TOTAL PHOSPHORUS (P) 0.002 0.018
TOTAL ORTHOPHOSPHATE (P) 0.001 0.006
SPECIFIC CONDUCTANCE (MICROMHOS) 22 22
WATER TEMPERATURE (DEG C) 8.2 4.1
COLOR (PLATINUM-COBALT UNITS) 0 0
SECCHI-DISC VISIBILITY (FT) 72
DISSOLVED OXYGEN 10.0 7.4

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE 7/24/73
TIME 1700
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) <1
FECAL COLIFORM, MAXIMUM (COL./100ML) <1
FECAL COLIFORM, MEAN (COL./100ML) <1

REMARKS

THE WATER HAS A HIGH CLARITY AS INDICATED BY A SECCHI-DISC READING OF 72 FEET. NO AQUATIC MACROPHYTES WERE OBSERVED.



EXPLANATION
 — 80 —
 Line of equal
 water depth
 Interval 40 feet

Twin, Upper Lake, Snohomish County. Bathymetric map from
 U.S. Geological Survey, September 13, 1973.
 Aerial photo, August 3, 1973.

WALLACE LAKE

SNOHOMISH COUNTY

LATITUDE 47°54' 8" LONGITUDE 121°40'26" T28N-R9E-20
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 3.76 SQ MI
ALTITUDE 1844. FT
LAKE AREA 54. ACRES
LAKE VOLUME 3200. ACRE-FT
MEAN DEPTH 60. FT
MAXIMUM DEPTH 100. FT
SHORELINE LENGTH 1.2 MI
SHORELINE CONFIGURATION 1.2
DEVELOPMENT OF VOLUME 0.60
BOTTOM SLOPE 5.8 %
BASIN GEOLOGY SED./META.
INFLOW PERENNIAL
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 0 %
NUMBER OF NEARSHORE HOMES 0
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 0 %
FOREST OR UNPRODUCTIVE 97 %
LAKE SURFACE 3 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

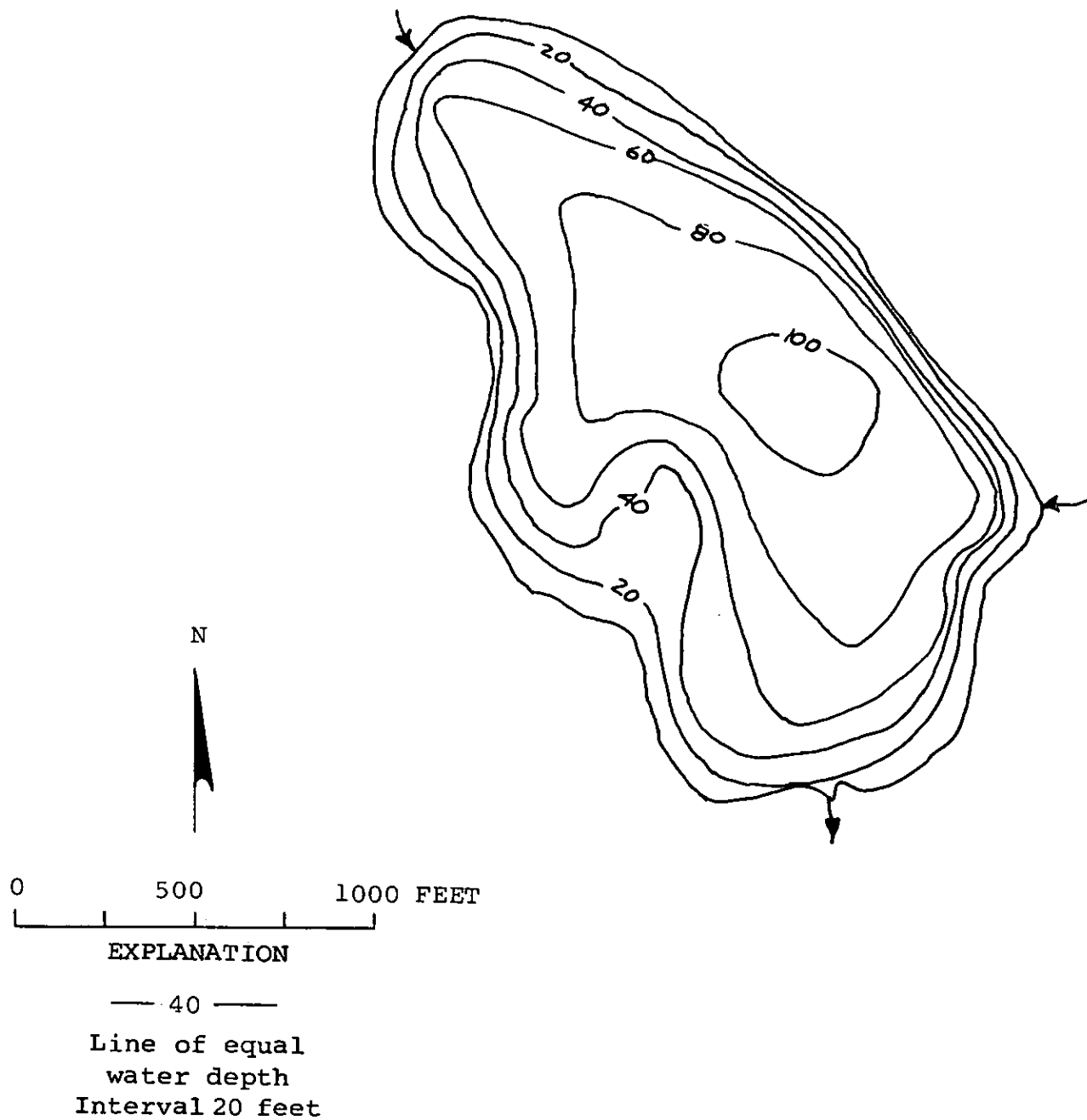
SAMPLE SITE 1
DATE 8/23/72
TIME 1150 1200
DEPTH (FT) 3. 89.
DISSOLVED NITRATE (N) 0.02 0.15
DISSOLVED NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.06 0.01
TOTAL ORGANIC NITROGEN (N) 0.78 0.10
TOTAL PHOSPHORUS (P) 0.002 0.002
DISSOLVED ORTHOPHOSPHATE (P) 0.002 0.001
SPECIFIC CONDUCTANCE (MICROMHOS) 34 41
WATER TEMPERATURE (DEG C) 16.2 5.0
COLOR (PLATINUM-COBALT UNITS) 20 10
SECCHI-DISC VISIBILITY (FT) 16
DISSOLVED OXYGEN 9.9 3.7

LAKE SHORELINE COVERED BY EMERSED PLANTS 1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

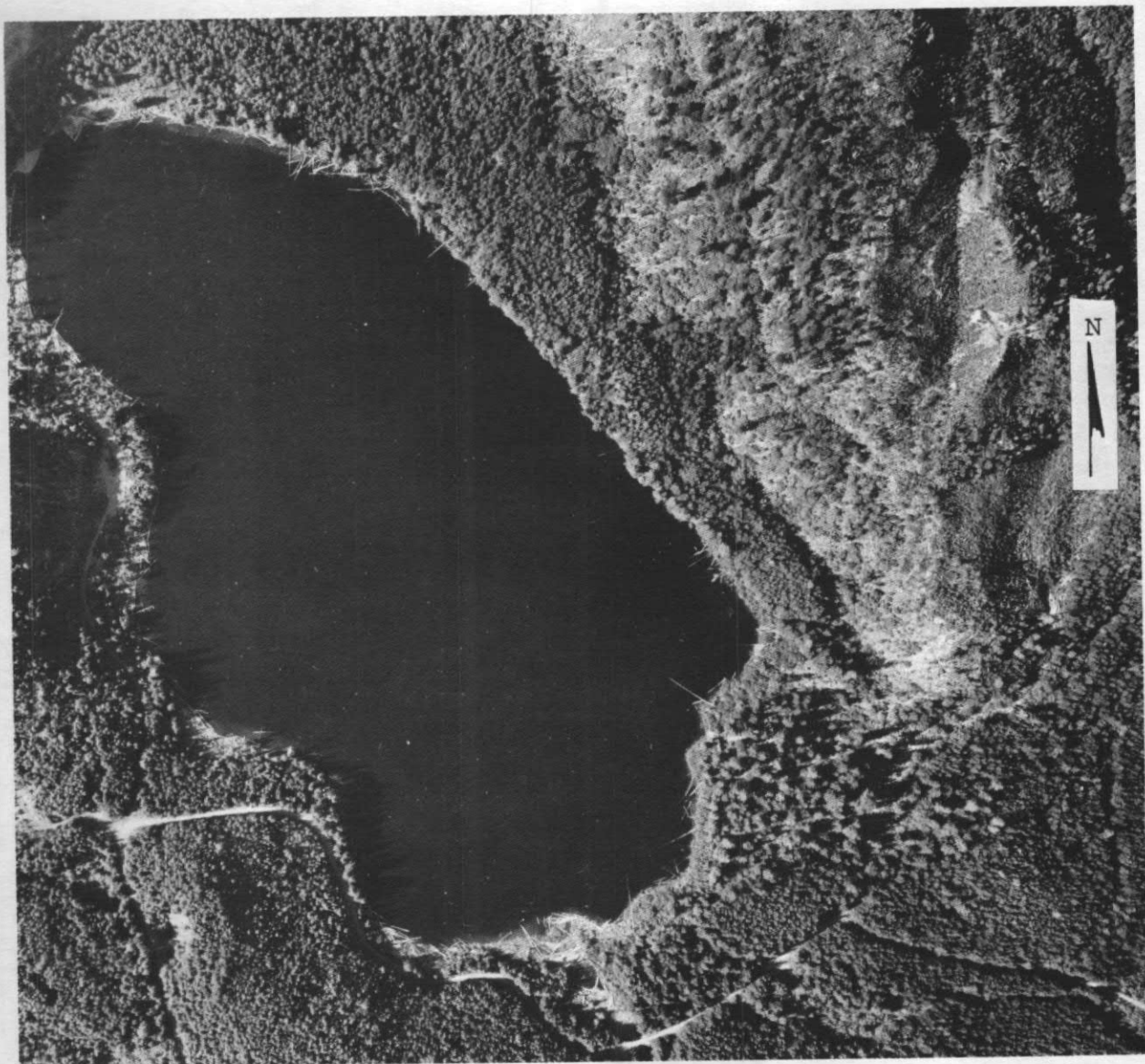
DATE 8/23/72
TIME 1200
NUMBER OF FECAL COLIFORM SAMPLES 2
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 2
FECAL COLIFORM, MEAN (COL./100ML) 1

REMARKS

THE LAKE HAS A LARGE INFLOW AND OUTFLOW. LOGS AND WOOD DEBRIS COVER THE SHORELINE. IN 1972 THE U.S. GEOLOGICAL SURVEY SAMPLED THE LAKE THREE TIMES. THE ROOTED AQUATIC PLANT COVER WAS ESTIMATED FROM AERIAL PHOTOGRAPHS.



Wallace Lake, Snohomish County. From Washington
Department of Game, June 25, 1957.



Wallace Lake, Snohomish County. August 9, 1972. Approx. scale 1:4800.

WEALLUP LAKE

SNOHOMISH COUNTY

LATITUDE 48° 6' 43" LONGITUDE 122° 18' 0" T30N-R4E-4
 PUGET SOUND BASIN

PHYSICAL DATA

 DRAINAGE AREA 8.38 SQ MI
 ALTITUDE 213. FT
 LAKE AREA 23. ACRES
 LAKE VOLUME 160. ACRE-FT
 MEAN DEPTH 7. FT
 MAXIMUM DEPTH 12. FT
 SHORELINE LENGTH 1.0 MI
 SHORELINE CONFIGURATION 1.6
 DEVELOPMENT OF VOLUME 0.57
 BOTTOM SLOPE 1.1 %
 BASIN GEOLOGY SED./META.
 INFLOW PERENNIAL
 OUTFLOW CHANNEL PRESENT

CULTURAL DATA

 RESIDENTIAL DEVELOPMENT 0 %
 NUMBER OF NEARSHORE HOMES 0
 LAND USE IN DRAINAGE BASIN
 RESIDENTIAL URBAN 0 %
 RESIDENTIAL SUBURBAN 5 %
 AGRICULTURAL 3 %
 FOREST OR UNPRODUCTIVE 79 %
 LAKE SURFACE 13 %
 PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

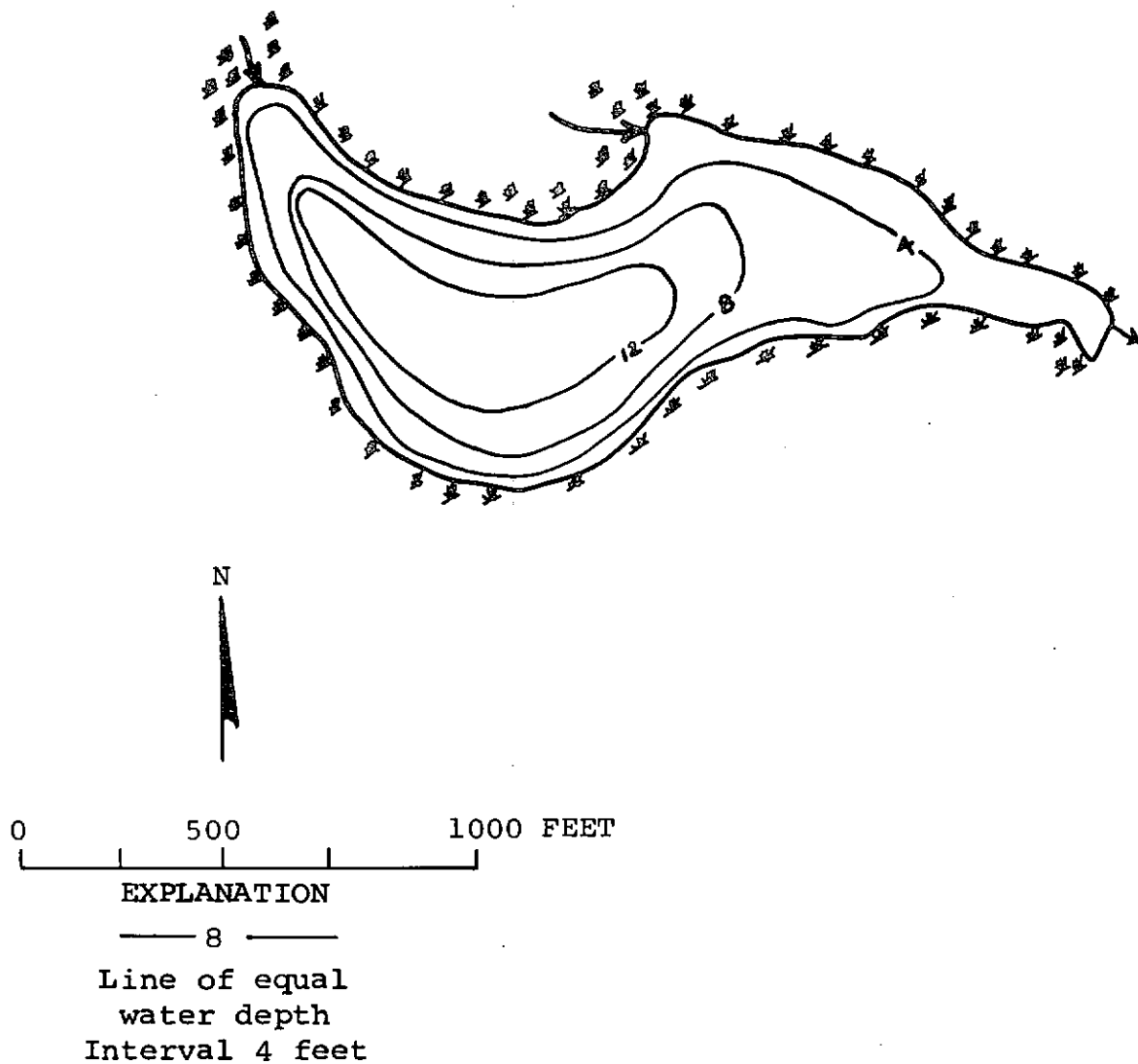
 SAMPLE SITE 1
 DATE 7/26/73
 TIME 1020 1025
 DEPTH (FT) 3. 11.
 TOTAL NITRATE (N) 0.02 0.02
 TOTAL NITRITE (N) 0.00 0.00
 TOTAL AMMONIA (N) 0.14 0.18
 TOTAL ORGANIC NITROGEN (N) 0.37 0.92
 TOTAL PHOSPHORUS (P) 0.023 0.058
 TOTAL ORTHOPHOSPHATE (P) 0.006 0.010
 SPECIFIC CONDUCTANCE (MICROMHOS) 70 77
 WATER TEMPERATURE (DEG C) 20.3 18.5
 COLOR (PLATINUM-COBALT UNITS) 15 15
 SECCHI-DISC VISIBILITY (FT) 8
 DISSOLVED OXYGEN 8.8 3.6

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
 LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

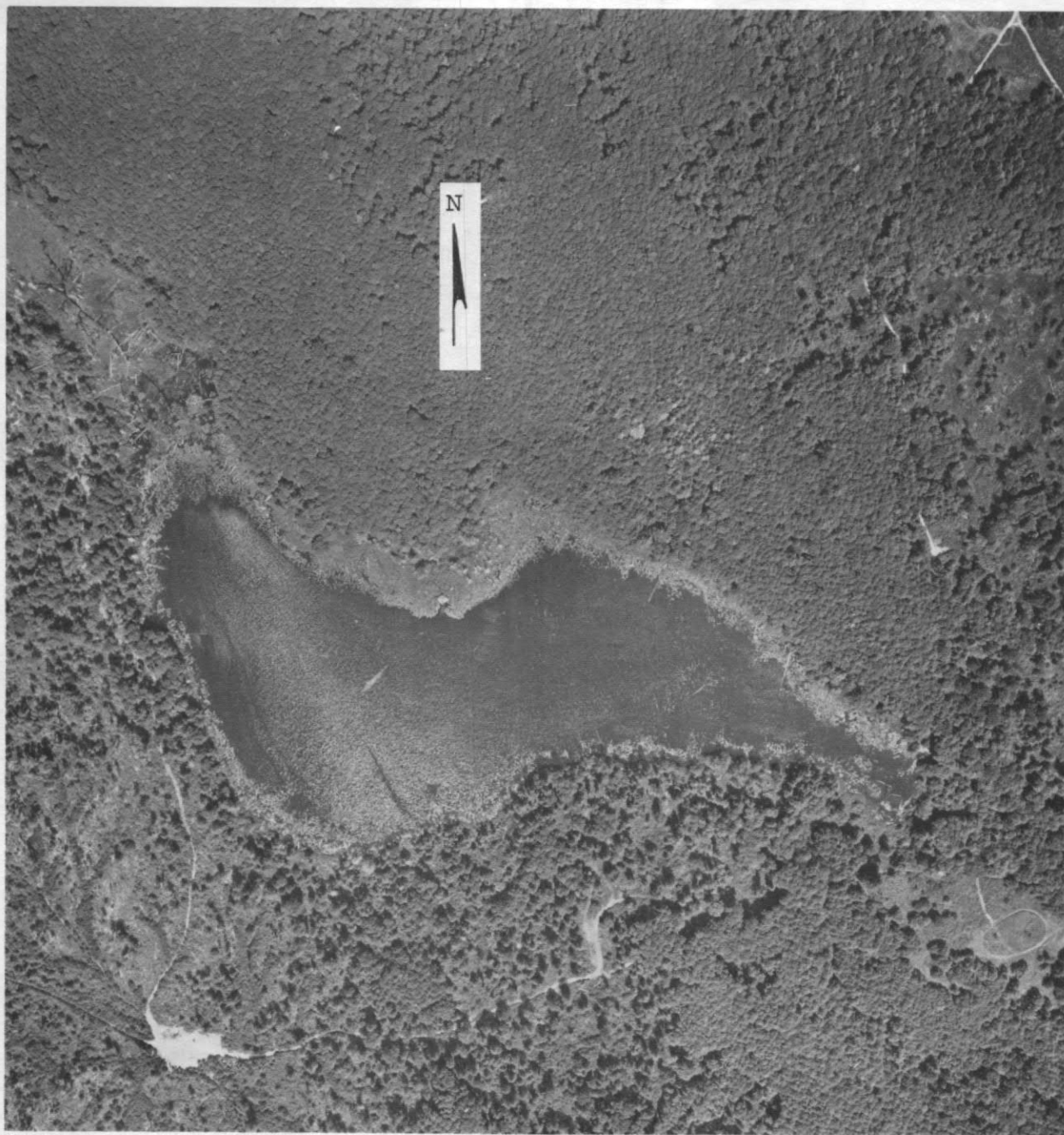
DATE 7/26/73
 TIME 1045
 NUMBER OF FECAL COLIFORM SAMPLES 2
 FECAL COLIFORM, MINIMUM (COL./100ML) 6
 FECAL COLIFORM, MAXIMUM (COL./100ML) 8
 FECAL COLIFORM, MEAN (COL./100ML) 7

REMARKS

 THE LAKE IS FED FROM SHOERAFT LAKE AND AN UNNAMED TRIBUTARY DRAINING
 A MARSH. THE LAKE HAD A HEAVY COVER OF BOTH EMERSED AND SUBMERSED
 AQUATIC PLANTS. LOGS AND SNAGS LITTER THE SHORELINE.



Weallup Lake, Snohomish County. From Washington
Department of Game, January 29, 1957.



Weallup Lake, Snohomish County. July 15, 1973. Approx. scale 1:4800.

WOODS LAKE

SNOHOMISH COUNTY

LATITUDE 47°55'34" LONGITUDE 121°50'23" T28N-R8E-7
SNOHOMISH RIVER BASIN

PHYSICAL DATA

DRAINAGE AREA 1.61 SQ MI
ALTITUDE 600. FT
LAKE AREA 21. ACRES
LAKE VOLUME 350. ACRE-FT
MEAN DEPTH 17. FT
MAXIMUM DEPTH 30. FT
SHORELINE LENGTH 0.71 MI
SHORELINE CONFIGURATION 1.1
DEVELOPMENT OF VOLUME 0.56
BOTTOM SLOPE 2.8 %
BASIN GEOLOGY SED./META.
INFLOW INTERMITTENT
OUTFLOW CHANNEL PRESENT

CULTURAL DATA

RESIDENTIAL DEVELOPMENT 3 %
NUMBER OF NEARSHORE HOMES 1
LAND USE IN DRAINAGE BASIN
RESIDENTIAL URBAN 0 %
RESIDENTIAL SUBURBAN 0 %
AGRICULTURAL 3 %
FOREST OR UNPRODUCTIVE 95 %
LAKE SURFACE 2 %
PUBLIC BOAT ACCESS TO LAKE --

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

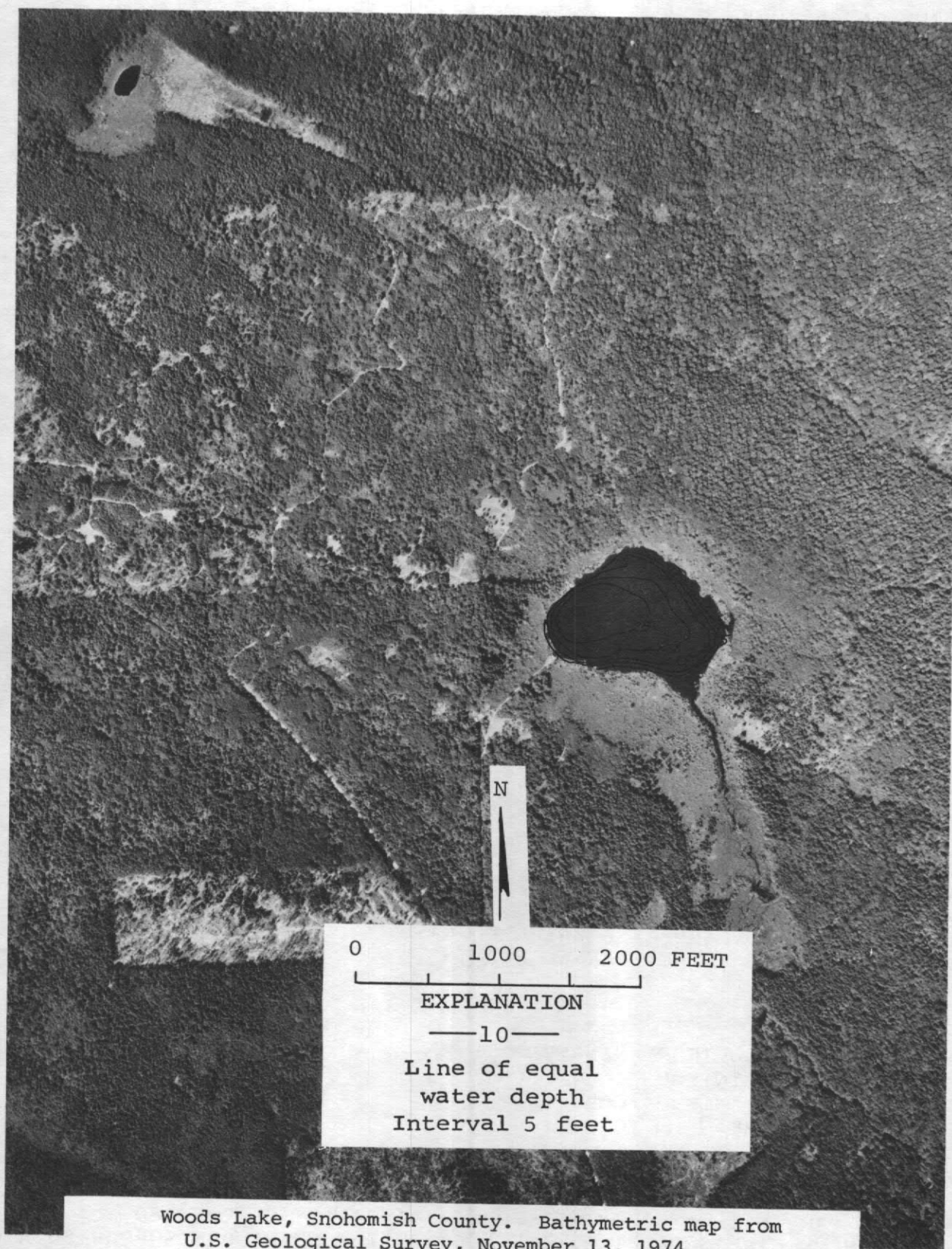
SAMPLE SITE 1
DATE 8/ 2/74
TIME 1200 1205
DEPTH (FT) 3. 20.
TOTAL NITRATE (N) 0.01 0.27
TOTAL NITRITE (N) 0.00 0.00
TOTAL AMMONIA (N) 0.08 0.06
TOTAL ORGANIC NITROGEN (N) 0.24 0.17
TOTAL PHOSPHORUS (P) 0.011 0.008
TOTAL ORTHOPHOSPHATE (P) 0.000 0.000
SPECIFIC CONDUCTANCE (MICROMHOS) 28 24
WATER TEMPERATURE (DEG C) 24.5 7.8
COLOR (PLATINUM-COBALT UNITS) 45 25
SECCHI-DISC VISIBILITY (FT) 8
DISSOLVED OXYGEN 7.8 2.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS 11- 25 %

DATE 8/ 2/74
TIME 1200
NUMBER OF FECAL COLIFORM SAMPLES 3
FECAL COLIFORM, MINIMUM (COL./100ML) 1
FECAL COLIFORM, MAXIMUM (COL./100ML) 4
FECAL COLIFORM, MEAN (COL./100ML) 2

REMARKS

THE SHORE MARGIN IS A BOGGY WETLAND. A DIVERSITY OF EMERSED PLANTS COVERED THE ENTIRE SHORELINE. THE MUCK BOTTOM NEARSHORE SUPPORTED A HEAVY GROWTH OF SUBMERSED PLANTS (PONDWEED).



INDEX

Page

King County	
Alice Lake-----	14
Ames Lake-----	17
Angle Lake-----	20
Annette Lake-----	23
Bass Lake-----	25
Beaver Lake-----	27
Beaver No. 1 Lake-----	29
Beaver No. 2 Lake-----	32
Bitter Lake-----	35
Black Lake-----	38
Black Diamond Lake-----	40
Boren Lake-----	43
Boyle Lake-----	46
Bridges Lake-----	48
Burien Lake-----	50
Calligan Lake-----	52
Caroline Lake-----	55
Cottage Lake-----	58
Deep Lake-----	61
Derrick Lake-----	63
Desire Lake-----	66
Dolloff Lake-----	69
Eagle Lake-----	72
Echo (23N-7E-2) Lake-----	74
Echo (26N-4E-6) Lake-----	77
Fenwick Lake-----	80
Findley Lake-----	83
Fish Lake-----	86
Fivemile Lake-----	88
Francis Lake-----	91
Geneva Lake-----	93
Granite Lake-----	96
Hancock Lake-----	98
Jones Lake-----	101
Joy Lake-----	103
Kaleetan Lake-----	106
Kathleen Lake-----	109
Killarney (North Arm) Lake-----	111
Killarney (South Arm) Lake-----	114
Klaus Lake-----	117
Kulla Kulla Lake-----	119
Langlois Lake-----	122
Larsen Lake-----	125
Leota Lake-----	127
Loch Katrine Lake-----	129
Loch Katrine, Upper Lake-----	132
Loop Lake-----	135
Lucerne Lake-----	137

King County--continued	Page
Lynch Lake-----	140
Margaret Lake-----	143
Marie Lake-----	146
Marten Lake-----	149
Mason Lake-----	152
McDonald Lake-----	155
Meridian Lake-----	157
Mirror Lake-----	160
Moneysmith Lake-----	163
Moolock Lake-----	166
Morton Lake-----	168
Nadeau Lake-----	171
Neilson (Holm) Lake-----	173
North Lake-----	176
Number Twelve Lake-----	179
Otter (Spring) Lake-----	182
Panther Lake-----	185
Paradise Lake-----	188
Phantom Lake-----	190
Philippa Lake-----	192
Pine Lake-----	195
Pipe Lake-----	198
Portage Bay Lake-----	201
Rachor Lake-----	204
Rattlesnake Lake-----	206
Ravensdale Lake-----	208
Retreat Lake-----	210
Sawyer Lake-----	213
Shadow Lake-----	216
Shady Lake-----	219
SMC Lake-----	222
Star Lake-----	224
Steel Lake-----	227
Sturtevant Lake-----	230
Thompson Lake-----	232
Trout Lake-----	235
Tuscohatchie Lake-----	238
Union Lake-----	241
Walker Lake-----	244
Webster Lake-----	247
Wildcat, Upper Lake-----	249
Wilderness Lake-----	252
 Snohomish County	
Armstrong Lake-----	255
Ballinger Lake-----	258
Blackmans Lake-----	261
Blanca Lake-----	263
Boardman Lake-----	265
Boardman, East Lake-----	267

	Page
Snohomish County--continued	
Bosworth Lake-----	270
Boulder Lake-----	273
Bryant Lake-----	275
Cassidy Lake-----	277
Chain Lake-----	280
Cochran Lake-----	282
Copper Lake-----	285
Crabapple Lake-----	287
Crystal Lake-----	290
Cup Lake-----	293
Dagger Lake-----	295
Devils Lake-----	297
Echo Lake-----	300
Flowing Lake-----	303
Fontal Lake-----	306
Goat Lake-----	308
Goodwin Lake-----	310
Greider, Big Lake-----	313
Hannan Lake-----	315
Helena Lake-----	318
Howard Lake-----	321
Hughes Lake-----	324
Indigo Lake-----	326
Isabel Lake-----	328
Janus Lake-----	331
Kelcema Lake-----	333
Kellogg Lake-----	335
Ki Lake-----	337
King Lake-----	340
Loma Lake-----	343
Martha (27N-4E-1) Lake-----	346
Martha (31N-4E-18) Lake-----	349
Menzel Lake-----	352
North Lake-----	355
Panther Lake-----	357
Peach Lake-----	360
Pear Lake-----	362
Peek-a-boo Lake-----	364
Riley Lake-----	366
Roesiger (North Arm) Lake-----	369
Roesiger (South Arm) Lake-----	372
Saucer Lake-----	375
Serene (27N-10E-31) Lake-----	377
Serene (28N-4E-34) Lake-----	379
Shoecraft Lake-----	382
Silver (28N-5E-30) Lake-----	385
Silver (29N-11E-28) Lake-----	388
South Lake-----	390
Stevens Lake-----	392
Stickney Lake-----	395

	Page
Snohomish County--Continued	
Storm Lake-----	397
Sunday Lake-----	400
Sunset Lake-----	402
Tomtit Lake-----	404
Twentytwo Lake-----	406
Twin, Lower Lake-----	409
Twin, Upper Lake-----	411
Wallace Lake-----	413
Weallup Lake-----	416
Woods Lake-----	419

STATEWIDE

ACC: ~~42~~68

Reconnaissance Data on Lakes in
Washington - Volume 2
King and Snohomish Counties

